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ABSTRACT

This study is designed to facilitate access for policymakers to the wealth of recent reports on American education. Section 1 examines the findings and compares the recommendations of nine of these reports in such areas as school organization and management, curriculum, and teachers and teaching. The report synopses in section 2, which are largely verbatim and comprise the bulk of the study, focus on these findings and recommendations as they pertain to education. The nine reports selected for examination are: "Academic Preparation for College: What Students Need to Know and Be Able to Do"; "Action for Excellence: A Comprehensive Plan to Improve Our Nation's Schools"; "America's Competitive Challenge: The Need for a National Response"; "High School: A Report on Secondary Education in America"; "Making the Grade"; "A Nation at Risk: The Imperative for Educational Reform"; "The Paideia Proposal: An Educational Manifesto"; "A Place Called School: Prospects for the Future"; and " A Study of High Schools." The study's final section offers an annotated bibliography of other education reports and projects recently made available, relating them to a set of critical areas similar to that presented in section 1. Each report or project description is accompanied by information on how to obtain it. (JBM)

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AN ANALYSIS OF RECENT MAJOR REPORTS ON EDUCATION

second edition

EA 016 494

NORTHEAST REGIONAL EXCHANGE, INC.

EDUCATION UNDER STUDY

AN ANALYSIS OF RECENT MAJOR REPORTS ON EDUCATION

second edition

developed by
J. Lynn Griesemer and Cornelius Butler

NORTHEAST REGIONAL EXCHANGE, INC.

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Northeast Regional Exchange, Inc.

The Northeast Regional Exchange, Inc. (NEREX), a private, not-for-profit corporation, is a service and research agency that promotes educational equity and improvement. NEREX coordinates resources and sharing of information among the seven state departments of education in the Northeast based on an established set of state and regional priorities. Through NEREX, states are able to expand their available resource base and work through regional sharing efforts toward program improvement in local school districts and other educational institutions. The Northeast Regional Exchange, Inc. is governed by a Board of Directors that includes the seven Chief State School Officers from the Northeast and eight representatives from a wide variety of education constituency groups in the region.

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Foreword

Education has emerged at the forefront of our nation's agenda, asking policymakers at all levels to respond. The opportunity to review our values and commitments to the foundation of our country—our youth—should be a well-planned and regular process. We are fortunate in the 1980s to have the thinking of many prestigious groups and scholars to help frame our thoughts and to point us toward areas of needed reform.

The Northeast Regional Exchange, Inc. is pleased to publish **Education Under Study: An Analysis of Recent Major Reports on Education.** The second edition of this publication includes a comparison and synopses of nine major reports. In full recognition of the many excellent resources available today, the final section is an annotated bibliography of selected other reports. The Northeast Regional Exchange has developed this document to aid you in your examination of the many excellent resources now available to policymakers.

The development of this publication has been made possible by the many persons who have served on nationwide commissions, task forces, and study groups. We thank them for their vast commitment to the examinations they conducted, and for the permission they granted, when required, to reprint excerpts of their work. Several persons have been primarily responsible for the development of this document. First, the primary editors and authors are J. Lynn Griesemer and Cornelius Butler. They have been assisted by Elsa Martz, Production Coordinator, and Carol Donaruma, and Joan-Marie King. Our appreciation for their rapid and thorough work is deep, for they have helped us respond to a growing demand for assistance in a timely manner. We also would like to express our most sincere appreciation to several people that have assisted as advisors and reviewers during the development of the original document and this second edition. At the federal level, we thank Thomas J. Burns, Director of Interagency Affairs, US Department of Education. From state education agencies, we are grateful to Stephen S. Kaagan, Commissioner of Education in Vermont; R. Douglas Dopp, Assistant to the Commissioner for Federal State Relations for the Connecticut State Department of Education; P. Alistair MacKinnon, Federal Education Legislation Coordinator for the New York State Education Department; and Christopher O'Neil, Executive Assistant to the Commissioner for the Rhode Island State Department of Education. From the school district level, we thank Carolyn Hazard, Director of Instruction, North Kingstown School Department in Rhode Island. From higher education, we thank Robert Goettel, Director of the Center for Research and Advanced Study at the University of Southern Maine; and Mark R. Shedd, Director of the Public Policy and Management Program at the University of Southern Maine. And finally, from our own organization, we recognize the assistance of Douglas S. Fleming, Manager for Information Services and Training at NEREX.

Robert L. Brunelle

Commissioner of Education
New Hampshire

Chair, Board of Directors
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Section I: Introduction and Comparison of Nine Recent Reports on Education

The recent wealth of reports on American education heralds a time for reinvesting in our nation's schools. We are awake to the importance of our youth and the relationship of education to the nation's economy.

The purpose of **Education Under Study: An Analysis of Recent Major Reports on Education** is to facilitate access for policymakers to the findings and recommendations of these reports. The analysis that appears in this section examines the findings and compares the recommendations across nine of the recent reports on education. The synopses of the reports in Section II are in large part verbatim and place major emphasis on those findings and recommendations as they pertain to education. Section III is an annotated bibliography of selected other reports that address the current health of our nation's schools. Each report is accompanied by a full reference and information on how to obtain the report.

The decision to include the nine reports in this examination was based on the following criteria:

- national sponsorship
- the eminent credentials of the principal author and/or study team
- availability of significant resources to perform a thorough study and the consequent close and careful analysis of the topic
- recommendations supported by either large data bases or extensive systematic observations of a large national sample of school systems.

The nine reports selected for examination are:

- **Academic Preparation for College: What Students Need to Know and Be Able To Do**—Educational EQuality Project—The College Board.
- **Action for Excellence: A Comprehensive Plan to Improve Our Nation's Schools**—Task Force on Education for Economic Growth—Education Commission of the States.
- **America's Competitive Challenge: The Need for a National Response**—A Report to the President of the United States from the Business-Higher Education Forum.
- **High School: A Report on Secondary Education in America**—Ernest L. Boyer, The Carnegie Foundation for the Advancement of Teaching.
- **Making the Grade**—Report of the Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy.
- **A Nation At Risk: The Imperative for Educational Reform**—The National Commission on Excellence in Education.
- **The Paideia Proposal: An Educational Manifesto**—Mortimer J. Adler on behalf of the members of the Paideia Group.
- **A Place Called School: Prospects for the Future**—John I. Goodlad.
- **A Study of High Schools**—Co-sponsored by the National Association of Secondary School Principals and the National Association of Independent Schools.

This section includes a brief discussion about the reports, and the underlying precepts about education that form the foundation of the reports. The main part of this section includes a comparison of recommendations by critical areas. These areas are: School Organization and Management; Curriculum; Students and Learning; Quality and Equality; Teachers and Teaching; Postsecondary Education; Leadership at the Local, State, and Federal Levels and through Business and Industry; and Research. A brief discussion about next steps concludes this section. Two tables with comparisons accompany the text.

General Comparison of Reports and Data Bases

The nine reports address many similar issues; however, they place different emphases on these issues, and they are written for a variety of audiences. Each study was sponsored by a different organization and varies by resources available for the study, the length of time spent on the study, and the data that form the basis for findings and recommendations. Table I presents a profile of the reports.

The reports range from autonomous perception, to authored documents derived from staff research, to task force consultation and consensus following examination of other data sources. The overwhelming nature of the proposals is correction and improvement. The findings and the recommendations derived from the data are similar in that there is no consistent fault finding. There are specific criticisms throughout the reports often accompanied by explanations of and data about the problem.

Academic Preparation for College was developed by The College Board as part of their 10-year Education EQuality Project. ". . . More than 200 high school and college teachers serving on the Board's many committees and on its Council on Academic Affairs responded to questionnaires and participated in meetings devoted to rethinking the subject-matter preparation that would best equip students for the most selective colleges. At the same time, the Board's Advisory Panel on Minority Concerns focused attention on the broad academic competencies needed by students entering all colleges." In 1981 "a broadly representative symposium . . . worked out the Basic Academic Competencies. . . . The Board's Academic Advisory Committees and its Council on Academic Affairs subsequently revised the subject-matter descriptions . . ." and the Council on Academic Affairs approved the Basic Academic Subjects in February of 1983. (pp. 4-5)

Action for Excellence, coordinated by the Education Commission of the States, is the report of the 41-member National Task Force for Economic Growth (including governors, legislators, corporate chief executives, state and local school board members, educators, leaders of labor and the scientific community), who deliberated over several months. Chaired by Governor James Hunt, Jr. of North Carolina, the report of the task force represents consensus on the problems of our educational system and recommendations for action.

America's Competitive Challenge: The Need for a National Response, a one-year research and study effort, was conducted by a 16-member Task Force of Business-Higher Education Forum members, meeting periodically "to review the information gleaned from past surveys and contemporary expertise." Co-chaired by R. Anderson, Board Chair of Rockwell Industries and David S. Saxon, President of the University of California, the Task Force developed its report and recommendations from these deliberations.

High School, by Ernest L. Boyer, is a profile of successes, problems and recommendations for reform of our American public secondary educational institutions. The three-year study was guided by a 28-member panel. Paul L. Houts, the project director, was assisted by a 25-member research team that spent over 2,000 hours visiting in 15 public high schools throughout the US. The report, issued by The Carnegie Foundation for the Advancement of Teaching, consists of vignettes about high schools based on intensive site visits, a presentation of relevant data about high schools, student achievement and enrollment, and financial support; and recommendations for improvement.

Making the Grade is a set of recommendations for a strong guiding federal role, extrapolated from a background paper by Paul E. Peterson, professor at the University of Chicago. Peterson's paper, which includes substantial statistical information, examines the successes and failures of federal influence on public education over the last century. The one and a half year study, sponsored by the Twentieth Century Fund, was guided by an 11-member task force (including representatives from higher education, state departments of education, and local school districts) and chaired by Robert Wood, former President of the University of Massachusetts.

Table I
Profile of Reports

TITLE	ACADEMIC PREPARATION FOR COLLEGE: What Students Need to Know and Be Able to Do	ACTION FOR EXCELLENCE: A Comprehensive Plan to Improve Our Nation's Schools	AMERICA'S COMPETITIVE CHALLENGE: The Need for a National Response	HIGH SCHOOL: A Report on Secondary Education in America	MAKING THE GRADE	A NATION AT RISK: The Imperative for Educational Reform	THE PAIDEIA PROPOSAL: An Educational Manifesto	A PLACE CALLED SCHOOL: Prospects for the Future	A STUDY OF HIGH SCHOOLS
Sponsor/ Author	Education EQuality Project—The College Board	Task Force on Education for Economic Growth Education Commission of the States	Business—Higher Education Forum	Ernest L. Boyer The Carnegie Foundation for the Advancement of Teaching	Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy	The National Commission on Excellence in Education-US Department of Education	Mortimer J. Adler on behalf of the Paideia Group	John I. Goodlad	National Association of Secondary School Principals and the Commission of Educational Issues of the National Association of Independent Schools
Chair(s)	Not Identified	Governor James Hunt, Jr.	R. Anderson David S. Saxon	Ernest L. Boyer	Robert Wood	David P. Gardner	Mortimer J. Adler	Ralph W. Tyler	Theodore R. Sizer
Representation of Task Force Members	200 high school and college teachers as members of various College Board committees and council	41 members: governors, legislators, CEO's, state and local school boards, and labor	16 members: business and higher education	28 members: state and local level educators, higher education, and business	11 members: state departments, local school level, and higher education	18 members: governor, legislators, State Boards, local school level, higher education, and professional associations	22 members: National, state and local level educators	6 members: National, state and local level educators	Study team of educators and educational researchers
Data Bases Utilized	Data collected from 1400 people through questionnaires and meetings; also judgments and recommendations	Task Force consensus on problems and recommendations	Past surveys and contemporary expertise	Field studies of 15 public high schools, data from **High School and Beyond** (NCES) and **A Study of Schooling** (Goodlad)	Background paper by Paul E. Peterson utilizing existing data	Commissioned papers, public oral and written comment; existing analyses; and descriptions of notable programs	Primarily philosophical	Questionnaires and observations in 38 schools across the country	Field studies of 14 public and private high schools
Time Frame of Study	3 years	1 year	1 year	3 years	1.5 years	1.5 years	1 year	8 years	3 years
Date of Release	May 1983	May 1983	April 1983	September 1983	May 1983	April 1983	September 1982	September 1983	January 1984

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A Nation At Risk: The Imperative for Educational Reform, was guided by the 18-member National Commission on Excellence, chaired by David P. Gardner, President of the University of Utah. The Commission, appointed by Secretary of Education, T.H. Bell, released its report in April 1983 after 18-months' work. The report is based on papers commissioned from experts; testimony from eight meetings of educators, students, professional and public groups, parents, public officials and scholars; existing analyses of problems in education; letters from concerned citizens, teachers, and administrators; and descriptions of notable programs and promising approaches in education.

The Paideia Proposal: An Educational Manifesto, written by Mortimer J. Adler, presents a conception of the desired processes and structure of schooling, for the greatest benefit for students and society. Proposed on behalf of the Paideia group, a 22-member panel of educators, the report is primarily philosophical and non-statistical in its presentation.

A Place Called School is a discussion of the current state of schooling—made real by the illustrative use of data carefully gathered through extensive inverviews and surveys of a diverse sample of 38 schools. The study extended over eight years, three of which were devoted to conceptualizing the plan. The study, directed by John I. Goodlad and chaired by Ralph W. Tyler, was accomplished with a staff of researchers and trained data collectors.

A Study of High Schools will be reported in three volumes over the next year. The first, to be released in January 1984, is entitled, **Horace's Compromise: The Dilemma of the American High School.** It is written by Theodore R. Sizer, director of the study. This study has involved intensive field studies in 14 public and private high schools in the 1981-82 academic year. The method, comparative school analysis, permits the exploration of diversity among schools and the processes of historical change. Information was collected by semi-structured interviews and observations.

Precepts

Five precepts about American education underlie the specific recommendations in the reports. These are:

- **Education is correlated with economic and social development.** Improved education outcomes are essential for the economic and social well-being of the individual, and therefore, of the nation. While some reports focus on this broad goal, others focus on personal growth or self-improvement, or on traditionally-measured student performance.
- **Quality education as a lifelong process is a universal right.** The assumption is that quality schooling through the secondary years is the right of all youth and only the beginning of education. Colleges and other postsecondary training efforts must be linked to secondary schools. Training and retraining programs should be available throughout the working years. Public schools should, therefore, teach not only content but also the process of learning.
- **Public schools will continue as a mainstay of our society.** Despite the pessimistic evaluations of public schools in the reports, none of them gives any serious consideration to alternatives to public schooling. Neither vouchers, tax rebates for private schooling, nor alternative schools with public sponsorship, are addressed in any significant depth.
- **Quality teachers and teaching underlie improved learning.** The cornerstone of school improvement is quality teachers and teaching. Education as a high intensity human resource "industry" requires that we invest heavily in "human capital." Without this, all other improvement efforts will fail.
- **Accountability and leadership by all must increase.** Whereas critiques of public schools of the earlier decades were prone to identify villains or weak links, these reports indict all sectors of society. The task, therefore, requires increased accountability and leadership by all at the federal, state, and local level, and in the public and private sector. Common to the reports is the viewpoint that the federal government has "national interest" responsibilities which are exemplified through targeted legislation, regulations, and financial support; State governments shape educational policy through establishing priorities, legislation, regulations, and financial support. Neither of these roles is to be confused with the strong and traditional responsibilities of local school districts to implement programs and deliver educational services which must be accompanied by local financial support.

The Recommendations: An Across-report Discussion

Eight critical areas are addressed in the reports. Table II presents a checklist of the critical areas of recommendations across the nine reports.

Table II
Critical Areas of Recommendations from the Nine Major Reports

	ACADEMIC PREPARATION FOR COLLEGE The College Board	ACTION FOR EXCELLENCE Education Commission of the States	AMERICA'S COMPETITIVE CHALLENGE Business-Higher Education Forum	HIGH SCHOOL Ernest L. Boyer	MAKING THE GRADE The Twentieth Century Fund	A NATION AT RISK Commission on Excellence	THE PAIDEIA PROPOSAL Mortimer J. Adler	A PLACE CALLED SCHOOL John I. Goodlad	A STUDY OF HIGH SCHOOLS Theodore Sizer
School Organization and Management		✓	✓	✓	✓	✓ +		✓ +	✓ +
Curriculum	✓ +	✓	✓	✓ +	✓ +	✓ +	✓ +	✓ +	✓
Students and Learning	✓	✓	✓	✓	✓	✓	✓ +	✓ +	✓ +
Quality and Equality	✓	✓		✓	✓ +	✓	✓	✓	✓
Teachers and Teaching	✓	✓	✓	✓ +	✓	✓ +	✓	✓	✓
Postsecondary Education	✓	✓	✓ +	✓		✓		✓	
Leadership:									
Local Role	✓	✓ +	✓	✓ +	✓	✓ +		✓	
State Role	✓	✓ +	✓	✓	✓	✓ +		✓	
Federal Role		✓	✓ +	✓	✓ +	✓ +			
Business & Industry		✓	✓ +	✓ +		✓			
Research			✓		✓ +	✓ +		✓	

✓ indicates that the report discusses and/or advances recommendations for action on this theme.
✓ + indicates that the report particularly emphasizes this theme.

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Curriculum, Students and Learning, and Teachers and Teaching are emphasized in all nine reports; Quality and Equality in eight reports; School Organization and Management, and Leadership at the Local and State Level in seven reports; Post-secondary Education in six reports; Leadership at the Federal Level in five reports; and Leadership in Business and Industry and Research in four reports. A summary of the findings and recommendations of the reports for each area is presented here, with comments on variations in the analysis of each.

School Organization and Management
(7 reports)

The role of the schools, the impact of goals and curriculum on structure, time spent in school, and the quality of school-based leadership emerge as the primary factors affecting school organization and management. School managers have been subjected to a wide array of new responsibilities over the past two decades. American schools are now acting as "surrogate parent, nurse, nutritionist, sex counselor, and policeman. . . . They are charged with training increasing percentages of hard-to-educate youngsters . . . so that they can effectively enter a more demanding labor market." (**Making the Grade,** p. 4) Rapidly changing demographics and judicial intervention have decreased the opportunities of administrators to oversee the teaching quality of their schools.

A Place Called School addresses the organizational context as centering on a comprehensive set of goals for schools. By demanding these goals, the state would ensure alternative curricular designs and pedagogical procedures, evaluation of teaching conditions in schools, new ways to organize and staff schools, improved teacher education programs, and improved opportunities and salaries for teachers (**A Place Called School**, pp. 325-326)

America's Competitive Challenge suggests that the structures of our schools and other American institutions have become "barriers to the flexible response which is the key to the future prosperity." (p. 5) Sizer, director of **A Study of High Schools,** believes that "the grip of structure" is the central obstacle to school improvement. (p. 680) His recommendations include: "a shorter, simpler, better-defined list of goals; this will involve shelving the long-standing claims of certain subject areas." He also recommends that schools eradicate age-grading and stereotyping by class, race, gender, and ethnicity. Teacher specializations, such as English and social studies, must be eradicated, however difficult this may be. (pp. 682-683)

A Nation At Risk focuses on time devoted to school and instruction. The report calls for significantly more time devoted to learning the New Basics, the more effective use of the existing school day, a longer school day or a lengthened school year. (pp. 29-30) Goodlad also recommends that school begin at age four and end at age sixteen. (p. 315) (**A Place Called School,** p. 325)

High School calls for better use of time, with "greater flexibility in school size and the use of time." (p. 314) Further, the report describes the principal as a "key educator" in creating the learning environment, who must be well prepared, allowed to exercise more control over the school operations and selection and rewarding of staff. The recommendations include a network of Academies for Principals to provide for continuing administrator development. (pp. 219-229)

Action for Excellence advances recommendations that pertain to principals and effective management. The task force, placing the principal "squarely in charge of educational quality," recommends that the "pay for principals should relate to responsibilities and effectiveness." Recognizing that "schools should use more effective management techniques," the report calls for state leadership in setting "higher standards for recruitment, training and monitoring the performance of principals." (p. 11)

Curriculum (9 reports)

The subjects, course content, and skills taught in our nation's schools are part of the substance of the recommendations on curriculum in all nine reports. Also, prevalent in each report is the establishment of standards both in terms of number of courses and achievement. Minimal focus is placed on differentiating between the college and non-college bound student.

Six of the reports addressing curriculum include a list of subjects required for graduation from high school and/or admission to college. Most of the reports address mathematics, sciences and technology, and one, **America's Competitive Challenge,** focuses primarily on mathematics and science. (main report, pp. 11-12)

A Place Called School calls for a better balance within both the school and individual student curriculum. (p. 283) **Action for Excellence** includes a broad recommendation that states and

school systems should strengthen the public school curriculum to make the academic experience more intense and more productive. (pp. 10-11) Some reports stress simplification of existing curricula and a consequent set of basic skills. Simplification however does not mean a shorter list, as some of the reports go well beyond the basic or core curriculum.

Some of the basics are traditional: "We recommend that all students seeking a diploma be required to lay the foundations in the Five New Basics: (a) four years of English; (b) three years of mathematics; (c) three years of science; (d) three years of social studies; (e) one-half year of computer science." (**A Nation At Risk,** pp. 24-27) **Academic Preparation for College,** which focuses primarily on curriculum, outlines in depth "the basic academic competencies" of reading, writing, speaking and listening, mathematics, reasoning, and studying. (pp. 7-30) **Making the Grade** recommends core components in the curriculum. "[They] are the basic skills of reading, writing, and calculating; technical capability in computers; training in science and foreign languages; and knowledge of civics . . ." (p. 3)

High School states that language is the first curriculum priority and recommends that "high schools help all students develop the capacity to think critically and communicate effectively through the written and spoken word." (p. 85) "The second curriculum priority is a core of common learning—a program of required courses in literature, the arts, foreign language, history, civics, science, mathematics, technology, health. . . ." (p. 94) Boyer also proposes a new Carnegie unit for service in the community. (p. 202-215)

The choice of traditional curriculum or course descriptions defined by competencies is more than a matter of style, especially for adherents of competency designations who espouse radical curricular change. **A Study of High Schools** would require different kinds of teaching formats that would induce higher order thinking skills, such as reasoning, imagining, analyzing, and synthesizing. (p. 682) **The Paideia Proposal** stresses three modes which apply not only to teaching style but also to the "three ways in which learning improves the mind: (1) by the acquisition of information or organized knowledge; (2) by the development of intellectual skills; and (3) by the enlargement of understanding." (p. 51)

The acceptance of traditional course outlines and the stress on curricula that center on intellectual skills are not necessarily polar. Both are part of existing teaching practices. Improvement in both rests within re-examination of the courses themselves and new teacher training programs.

Students and Learning (9 reports)

An unstated goal of the recommendations in each of the reports is to enhance student learning and achievement. The primary emphasis is on student attitudes and culture and the learning needs of unserved and underserved populations.

The most forceful report on student performance and attitudes as a key component of school improvement is in the humanistic document, **The Paideia Proposal,** which stresses that laxity in deportment can be "completely destructive of learning and completely frustrating to the efforts of the best teachers. Students must be required to behave in class and in school in a manner that is conducive to learning." (p. 55)

A Place Called School points out that one condition for the improvement of schools is "a youth culture powerfully preoccupied with itself. . . . Studies and statistics on absenteeism, truancy, and interpersonal tensions—sometimes leading to violence—raise serious questions about the appropriateness of schools, as conducted for many of the older students in attendance." (p. 321)

Action For Excellence recommends that the academic experience be "more intense and more productive." To achieve this, the task force recommends that states and school systems establish "firm, explicit, and demanding requirements concerning discipline, attendance, homework, grades, and other essentials of effective schooling." (p. 10)

A Study of High Schools suggests structural changes to enhance student learning. Sizer states that "a central goal of schooling is for students to be able to teach themselves and to wish to do so." Learning opportunities, according to Sizer, also should give incentives to students to use their out-of-school opportunities in ways that help them learn still more. (p. 682) Goodlad, in **A Place Called School**, recommends that the emphasis be placed on mastery learning for all students. He further includes recommendations for improving instruction that are intended to "expand students' opportunities to learn." (p. 319)

High School recommends an expansion of the learning environment through stronger links to the community, business and industry, and col-

leges. Also included in this report is the recommendation for a new Student Achievement and Advisement Test (SAAT) that would evaluate academic achievement and provide advisement, "helping students make decisions more intelligently about their futures . . ." (p. 134)

The reports emphasize that college applicants, for example, "may not have had the chance to prepare adequately for higher education and that colleges will still have an obligation to meet the needs of such students." (**Academic Preparation for College,** p. 33). This document, which was written in part as a report to students, adds that "a decision to admit a student is, after all, an agreement to provide instruction at that student's current level of knowledge and skill." (p. 33)

America's Competitive Challenge stresses that American institutions are inadequately prepared for the challenge of the next decade in which 15 million new workers will enter the workforce, and in which over 100 million currently employed will need training to keep abreast of changing job needs. (pp. 4-5)

A Nation At Risk, refers to the longstanding promise that "all children by virtue of their own efforts, competently guided, can hope to attain the mature and informed judgment needed to secure gainful employment and to manage their own lives. . . ." (p. 8) The five recommendations each have implications for the student learning environment.

Action for Excellence stresses that the schools must serve better those students who are now unserved and underserved. They recommend that this be done through "increased participation of women and minorities where they are underrepresented; equitable finance measures; challenging the academically gifted students; reducing absences and failures; and special inclusion of handicapped students in programs for education and economic growth." (p. 11) **Making the Grade** also focuses on special populations of students and their learning needs. The task force "supports continuing federal efforts to provide special educational programs for the poor—and for the handicapped." Categorical programs funded by the federal dollar and "impact aid for high concentrations of immigrant and/or impoverished groups" also is strongly urged. (pp. 15-16)

Quality and Equality (8 reports)

The goal of maintaining both quality and equality may be the most difficult of the recommendations to implement. While the reduction in the quality (or excellence of performance) of public education is a main concern expressed in the reports, there has been an emphasis by the federal government on equality in education, defined as equal access to education programs for all students, in the last two decades. A few reports simply state the goal of attaining both quality and equality; others present mastery of a core curriculum and the elimination of tracking as the mechanism for achieving this goal.

There is an implicit conclusion in six reports that new thrusts toward quality should not reduce the accomplishments of the recent improvements in equality. With the exception of **Making the Grade,** the reports do not see any obstacle in pursuing both. In fact the statements see the two as necessary and easily interlocking priorities. "Concern for educational quality should be expressed in ways that advance social justice. Educational quality must not lead to actions that limit the aspirations and opportunities of disadvantaged and minority youth, or that would reverse the progress that has already been made." (**Academic Preparation for College,** p. 33)

A Nation At Risk asserts that "the twin goals of equity and high-quality schooling have profound and practical meaning for our economy and society, and we cannot permit one to yield to the other either in principle or in practice." (p. 13) **Action for Excellence** devotes two of the eight recommendations to this theme: the first is to "provide quality assurance in education," the second to "serve better those students who are now unserved or underserved." (pp. 10-11)

Recommending a one-track system, **High School** stresses that ". . . in the debate about public schools, equity must be seen not as a chapter of the past but as the unfinished agenda of the future. To expand access without upgrading schools is simply to perpetuate discrimination in a more subtle form. But to push for excellence in ways that ignore the needs of less privileged students is to undermine the future of the nation. Clearly, equity and excellence cannot be divided." (p. 6)

The Paideia Proposal avers that ". . . to give the same quality of schooling to all requires a program of study that is both liberal and general, and that is, in several, crucial, overarching respects, one and the same for every child." (p. 21) Thus, elective choices are inappropriate. **A Place Called School** recommends the elimination of tracking and ability grouping as the primary change that would, along with improved instruc-

tion, create greater equity in access to learning for all students. (p. 319) These difficult and integral changes are seconded by **A Study of High Schools.** "Lessening segregation and stereotyping by class, race, gender, and ethnicity requires not only unprejudiced attitudes . . . but also changes in the structure of schooling." (p. 682)

Teachers and Teaching (9 reports)

The teacher and teaching emerge as fundamental issues underlying each of the reports. Recommendations are forwarded regarding the improvement of the teaching environment, teacher incentives, accommodating for shortages of math and science teachers, and teacher training. Echoed in recent press releases and national meetings, many see reform in this area as critical to all other improvement efforts.

Several reports recognize that all teachers are subjected to environmental circumstances which inhibit good teaching. "The teacher, along with all other authority figures, does not appear to command the respect commonly accorded a generation ago. The complex organizational structure in which the classroom teacher now operates restricts independence and autonomy. . . ." (**Making the Grade,** p. 9) Sizer, building on this theme, feels that if teachers are "denied autonomy, they do mediocre work—or leave teaching. . . . Top professionals want a career that gradually develops, with more responsibility and compensation following experience and demonstrated excellence." (**A Study of High Schools,** p. 683)

The recommendation for "a National Master Teachers program, funded by the federal government" is proposed as a forerunner for "reconsideration of merit pay for teachers." (**Making the Grade,** pp. 9-10) **A Nation At Risk** devotes an entire set of recommendations to teaching. The recommendations are intended to improve the preparation of teachers and to make teaching a more rewarding and respected profession. Included is a recommendation for merit pay for teachers that would be "professionally competitive, market-sensitive, and performance-based. Salary, promotion, tenure, and retention decisions should be tied to an effective evaluation system that includes peer review so that superior teachers can be rewarded, average ones encouraged, and poor ones either improved or terminated. . . ." (**A Nation At Risk,** p. 30) Other recommendations advanced by the Commission, include higher educational standards for teachers, 11-month contracts, career ladders, incentives such as grants and loans, and a master teacher program. (pp. 30-31)

High School provides a comprehensive set of recommendations for the improvement of teachers and teaching. Starting with the conditions of teaching, recommendations include lower class loads, increased class preparation time, and exemption from noninstructional duties. (p. 159) Several recommendations center on a variety of ways to recognize and reward teachers, including a Teacher Excellence Fund for competitive grants for professional projects. **High School** specifically recommends an increase of 25 percent above inflation in the average teacher salaries over the next three years and continued resources for inservice teacher renewal. Comprehensive recommendations are included about teacher recruitment and training, which place primary responsibility on institutions of higher education for standard-setting and incentive programs. (pp. 154-185)

Action for Excellence recommends that the public "express a new and higher regard for teachers and for the profession of teaching." Included as action steps are the improvement of methods for recruiting, training, and paying teachers; the creation of career ladders for teachers; and the development of new ways to honor teachers. (p. 37)

America's Competitive Challenge, primarily concerned with mathematics and engineering, recommends forgiveness loans, the upgrading of skills for those who teach mathematics and science, and "support from federal, state and local governments and the private sector to provide ongoing training of secondary school science and math teachers." (pp. 11-12)

The reports have implications for the content of teacher education curriculum. **The Paideia Proposal** suggests that teachers "should themselves be at least as well-schooled as the graduates of the schools in which they are expected to teach." (p. 59) Goodlad stresses the need for "immersion in behavioral and humanistic studies" and "guided observation and practice only in key and demonstration schools working in collaboration with the teacher preparing institutions." (**A Place Called School,** p. 319)

Postsecondary Education (6 reports)

Since the focus of the reports is elementary and secondary education, the discussion about postsecondary education is primarily related to increased academic standards for teachers and

changes in teacher education curriculum as presented in the previous discussion. Hand-in-hand with the recommendations for increased standards for teachers is increased standards for all college students. (**A Nation At Risk,** p. 27; **Action for Excellence,** pp. 10-11)

The reports also call for increased cooperation between public school systems and postsecondary institutions, and education that encourages lifelong learning. In the reports that argue for increased cooperation between public school systems and postsecondary institutions, there is little disagreement about the need. In particular, there is a general finding that the existing pattern in which the postsecondary institutions' degree requirements for high school programs should be replaced by a dialogue among equals. An example of this type of cooperation evolved during the College Board's comprehensive examination of requirements in both academic competencies and subjects as proposed in **Academic Preparation for College.**

In addition to the several recommendations for improved teacher education, **High School** calls for the establishment of state level school-college coordination panels "to define the recommended minimum academic requirements to smooth the transfer from school to public higher education." (p. 316) Stressing greater high school-college collaboration, the report recommends "university in the school" programs for more accelerated students and comprehensive one-to-one relationships between a single school and a college. (pp. 255-267)

Displaced workers who will need schooling well beyond their public school years, is an additional rationale for strong linkages between public schools and postsecondary institutions. **America's Competitive Challenge** goes further to describe an Individual Training Account (ITA) which could be created to give individuals an incentive to save for their own education and training needs after they have commenced their working careers. In addition to vocational necessities there is also a need for a "Learning Society" which is committed "to a set of values and to a system of education that affords all members the opportunities to stretch their minds to full capacity, from early childhood through adulthood, learning more as the world itself changes." (**A Nation At Risk,** pp. 13-14)

Leadership (7 reports)

Leadership responsibilities necessary to effect significant improvements are, at a minimum, exemplified by the prestigious commission/task force membership and sponsoring organizations of the reports. Strong leadership roles are, however, implicit in all reports and explicitly addressed in seven of the reports. Two reports (**The Paideia Proposal** and **A Study of High Schools**) do not specifically recommend who should take action but only the type of action to be taken. Other reports include recommendations that cover a wide variety of persons who should accept leadership responsibility, specifically those at the local, state, and federal level, and in business and industry.

Action for Excellence has 8 action recommendations, each of which centers on an area of educational leadership. Accompanying the report, there are separate brochures for action to be taken by governors; state legislators; business, industry and labor; school boards, and other policymakers.

High School addresses the public commitment to education through a comprehensive set of recommendations for local, state, federal, and business and industry leadership. Ranging from service to financial and regulatory responsibilities, Boyer states, "how we, as a nation, regard our schools has a powerful impact on what occurs in them. It helps determine the morale of the people who work there; it helps students calibrate their expectations; it contributes, one way or another, to the climate for reform. Whether a school succeeds or fails in its mission depends in no small measure on the degree of support received from the nation and from the community it serves." (p. 281)

America's Competitive Challenge makes one overall recommendation: "As a nation, we must develop a consensus that industrial competitiveness is crucial to our social and economic well-being." This can be implemented only by strong federal leadership and action. (p. 7)

Making the Grade requests the executive and legislative branches of the federal government to emphasize the need for better schools—but insists that "elementary and secondary education must remain a reponsibility of state and local governments." **A Nation At Risk** distributes the requirement of leadership across the board; to principals and superintendents, to state and local officials, and to the federal government in cooperation with states and localities. The latter has the responsibility to "identify the national interest in education;" the citizenry must provide the financial resources necessary to improve education. (p. 33)

The tendency of the reports is to establish a pyramid of leadership, from the federal government at the apex to the schools at the base, with instructional leadership increasing toward the base. Allocations of specific leadership responsibilities are a bit ambiguous, not surprising considering the multi-faceted nature of the concept.

Local Role (7 reports) In addition to shared leadership discussed above, a few reports have some specific recommendations for local school systems. **A Nation At Risk** places strong emphasis on the local role, particularly in the recommendations for financing and improving teaching, as mentioned earlier.

Academic Preparation for College recognizes the need for commitment of local communities and leadership to effect the curricula, standards, and overall policy changes they suggest for the schools. **A Place Called School** stresses "greater decentralization of authority and responsibility to the local school site. . . . The unit of improvement is the individual school." (p. 318)

Action for Excellence includes specific actions for school systems in the recommendations regarding resources, teachers, academic programs, quality assurance, leadership and management in schools, and serving the unserved or underserved. In short, the roles as described by the task force are many and varied, requiring that states and school systems work together to ensure excellence. (pp. 10-11)

High School includes suggested actions for parents, school boards, and district level leadership. These range from volunteer service to school board membership where the responsibilities include finances, personnel, and coordination. In **High School**, local leadership is viewed as central to school improvement. "The high schools of the nation are only as strong as the communities of which they are a part. The renewal of the school must, quite literally, begin at home." (p. 286)

State Role (7 reports) As presented above, the state role is perceived as primary to school improvement, particularly in establishing standards for curriculum, student excellence, and teacher training. In addition, the state is a major financial resource.

Goodlad, in **A Place Called School,** summarizes this by stating that "the recommendations for states are intended to assure the clear articulation of a comprehensive set of goals for schools; the availability of alternative curricular designs and pedagogical procedures; continuing assessment of the condition of education in schools; and support for school improvement. They are intended, also, to impress upon state leaders the need to stimulate creative ways to organize and staff schools, develop teacher education programs, and eliminate the present 'flatness' in teaching opportunities and salary schedules." (p. 318)

A Nation At Risk includes in each of the five recommendations suggested state action including graduation requirements, curriculum, length of the school day and year, teacher certification and teacher incentives, and fiscal support. (pp. 24-33) **Action for Excellence** emphasizes a strong state role led by the governor who should develop a state plan for education and economic growth. **High School** emphasizes that "the state's role is to provide a framework for assuring equity and quality while avoiding overregulation." (p. 291)

Federal Role (5 reports) Four of the reports do not include any reference to the federal role, ostensibly because their concerns are limited to the reconstruction of schools and schooling and therefore avoid political considerations. (These are: **A Study of High Schools, A Place Called School, The Paideia Proposal** and **Academic Preparation For College.**) **Action for Excellence** includes a federal requirement but emphasizes that new initiatives should originate at the state and local levels. **America's Competitive Challenge** includes many specific federal interventions, but these are directed primarily at the economic context rather than education.

High School defines three broad purposes for the federal role in education: information gathering and reporting, ensuring education quality for special needs students; and support to schools in areas of emergency national needs. Recommended programs include federal grants to states for graduate follow-up surveys, increase in Title I support, a National Teacher Survey, a network of Technology resource Centers, and a school facilities act. (pp. 291-296)

A Nation At Risk commands our attention relative to the federal role because it was directed by the Secretary of Education. It states that the primary responsibility for financing and governing the schools rests with state and local officials, and that the federal government, in cooperation with States and localities should help "meet the needs of key groups of students such as the gifted and talented, socioeconomically disadvantaged, minority and language minority students, and the handicapped. The Na-

tional Commission on Excellence in Education (**A Nation at Risk**) included federal responsibilities which surround the educational process, such as "protecting constitutional and civil rights for students and school personnel; collecting data, statistics, and information about education generally; supporting curriculum improvement and research on teaching, learning, and the management of schools; supporting teacher training in areas of critical shortage or key national needs; and providing student financial assistance and research and graduate training. We believe the assistance of the Federal Government should be provided with a minimum of administrative burden and intrusiveness." The Commission adds that the Federal Government should fund and support efforts to protect and promote the national interest. (p. 33)

Specific federal programs are proposed in **Making the Grade.** This report clearly argues that the federal government "is charged with providing for the security and well-being of our democratic society, which rest largely on a strong and competent system of public education." The method for achieving federal involvement is to be a "firm but gentle goad to states and local communities without impeding or restricting state and local control of an accountability for the schools." (p. 4) The report examines the federal education role in recent years and concludes that criticisms of it have been exaggerated. It does not ignore, however, that the role has been counterproductive especially when it resorted to compulsory regulation and mandated programs. This new role would correspond with a change in emphasis from current regulations and mandates to a new emphasis on incentives. (pp. 5-7)

Making the Grade encourages a strong federal role. It proposes, also, a federally-funded National Master Teachers Program that might lead to reconsideration of merit pay. Calling for a federal statement that the most important objective of education in the United States is the development of literacy in the English language, it further urges that the federal government emphasize programs in basic scientific literacy, as well as in advanced training in science and mathematics. The task force suggests federal loans for teachers to pursue degree programs in these shortage areas. The report argues for reformulation of the existing impact-aid formula to include immigrant children. The heart of the issue, says the report, is that local school districts do not have the will to concentrate on these needs and that a new federal initiative is a necessity if educational excellence is to be realized. (pp. 8-22)

Business and Industry (4 reports) Four reports focus either on the improved economic link to education or the general need for support from business and industry for school improvement. **America's Competitive Challenge** recommends private sector initiatives that support education through the financing of sophisticated equipment, greater use of academicians as consultants, and assistance with other university-based initiatives. **High School** links the "quality of work" to the "quality of education" and thus proposes several school-business partnerships. These include help for disadvantaged students, enrichment programs for the gifted, cash awards to outstanding teachers, the use of business training facilities and models for principals, and assistance with the upgrading of school facilities and equipment. (pp. 268-280) **Action for Excellence** presents a full set of recommended actions for business, industry, and labor in a brochure that accompanies the report. The role as described includes being active in community efforts; sharing staff, training, and expertise; providing opportunities for students and teachers to explore occupations; financial support; and lobbying for legislation that improves schools. Concurrent with the Reagan Administration's request that business and industry be supportive of education, **A Nation At Risk** suggests that leaders from the private sector are part of the American public that must respond.

Research (4 reports)

The reports all include implications for future educational research across the topics presented above; however, only four reports specifically discuss research. **America's Competitive Challenge** recommends private sector investment in university-based research facilities. **A Place Called School** recommends investment (including private sector support) in "research and development centers focused on curriculum design, on the content of the major domains of the curriculum, and on teaching and evaluation." (p. 319)

Research is seen by the National Commission as a federal leadership responsibility supporting all areas of recommended improvement. (**A Nation At Risk**, p. 33) **Making the Grade** recommends federal support for a number of specific research activities: the collection of factual information about various aspects of the education system itself; the collection of information about the educational performance of students, teachers, and schools across the nation; evaluation of

federally-sponsored education programs; and fundamental research into the learning process. (pp. 17-18)

Next Steps

The emergence of these reports and recommendations leads to the question: What next? The common concerns of the task forces, authors, and sponsors help ensure the likelihood that the recommendations will be considered and discussed. However, educational improvement of this magniture requires federal leadership that complements state and local action. **The first step, therefore, is federally convened discussions among the stakeholders represented in these reports, to determine implications, future steps, and leadership responsibility.**

Each of the reports addressing the federal, state, and local responsibilities for school improvement agrees that the decisions about program selection reside primarily at the state and local level with federal guidance in areas of "national interest." However, to obtain public support, the price tag must be visible, whether it is high or very high. **The second step, therefore, is a determination of resources that the federal, state, and local governments would provide for improved educational quality.**

Decision-making will require hard choices. **The third step, therefore, is a re-analysis of the reports, not to critique the recommendations, but to place them in a context that would facilitate choices at the state and local level.**

The fourth step is a study emphasizing the feasibility of implementing selected programs in the schools. This process should incorporate the resources of support organizations including higher education, intermediate service organizations, professional associations, foundations, and the federal government.

There are other outstanding reports in process. It will be difficult to provide the public with a simplified list of best options, but new insights must be publicized while the nation's schools seek solutions that will ensure the onset of a new movement toward educational excellence. **To the degree possible, the fifth step must involve the findings and recommendations of new reports, yet to be released.**

The education reports of the 1980s mandate a response by the American people. The debate that we are engaged in is healthy—but more important is the resolution and ultimate improvement in the education of our youth.

Section II: Synopses of the Nine Reports on Education

Synopses of the following reports are presented:

Academic Preparation for College: What Students Need to Know and Be Able to Do

Action for Excellence: A Comprehensive Plan to Improve Our Nation's Schools

America's Competitive Challenge: The Need for a National Response

High School: A Report on Secondary Education in America

Making the Grade

A Nation At Risk: The Imperative for Educational Reform

The Paideia Proposal: An Education Manifesto

A Place Called School: Prospects for the Future

A Study of High Schools

Academic Preparation For College: What Students Need to Know and Be Able to Do*

The College Board

The College Board report, released in Spring 1983, is the report of the 10-year Educational EQuality Project. The project, which is under the direction of the Board's Office of Academic Affairs, is advised by numerous task forces and dialogues. A list of these appear in the appendices to the full text. The report includes specific academic competencies, basic academic subjects, and suggestions for action.

Identifying the Outcomes

". . . **Academic Preparation for College** outlines what college entrants need to know and be able to do. It summarizes the combined judgments of hundreds of educators in every part of the country. It is meant for students and their parents; for teachers, counselors, and education administrators; for school boards and other government officials responsible for the overall policy and finances of our schools. It is meant also for college and university faculties and administrators. . . . (pp. 1-2).

". . . **Academic Preparation College** is an agenda for high schools to pursue, each in the context of its own resources and mission, and in collaboration with the community it serves and the colleges its students seek to enter. . . . (p.4)

The Basic Academic Competencies

"The Basic Academic Competencies are reading, writing, speaking and listening, mathematics, reasoning, and studying. These competencies are interrelated to and interdependent with the Basic Academic Subjects. Without such competencies, knowledge of history, science, language, and all other subjects is unattainable.

"The Basic Academic Competencies are developed abilities, the outcomes of learning and intellectual discourse. There are different levels of competency; they can be defined in measurable terms." (p. 7)

Computer Competency: An Emerging Need

"A revolution in communications and information technology is making the computer a basic tool for acquiring knowledge, organizing systems, and solving problems. As such, it is having

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a profound influence on learning and on the world of work.

"In the immediate future most workers either will work directly with computers or have their work influenced by computers in some significant way. An influence as pervasive as this requires, among other things, an informed citizenry that not only understands what computers can and cannot do, but also is aware of the problems and issues involved in their use.

"In schools and colleges the computer is being used increasingly by students and their teachers as an instrument to receive, organize, store, analyze, and interpret information, as well as a medium for the communication of that information. Competency in its use is emerging as a basic skill complementary to other competencies, such as reading, writing, mathematics, and reasoning. The computer also provides access to bodies of knowledge in each of the academic disciplines." (p. 11)

The Basic Academic Subjects

"Study in the Basic Academic Subjects provides the detailed knowledge and skills necessary for effective work in college. Students who intend to go to college will need this basic learning in order to obtain the full benefits of higher education. This learning provides the foundation for college study in all fields. . . .

"The Basic Academic Subjects are English, the arts, mathematics, science, social studies, and foreign language. Although these subjects are presented separately (in the report), they depend on each other in many ways.

"The Basic Academic Subjects are presented in two parts: the first explains **why** preparation in a subject is important for college entrants; the second outlines **what** college entrants need to know and be able to do in that subject area. . . . (p. 13)

Achieving The Outcomes

"Identifying the academic preparation needed for college is a first step toward providing that preparation for all students who might aspire to higher education. But the real work of actually achieving these learning outcomes lies ahead. It will require a vast extension of the commitment and cooperative action that led to this description of academic preparation for college. (p. 31)

Action Within the Schools: ". . . As high schools devise curricular and instructional approaches to achieving these learning outcomes, they may find it useful to take into account several suggestions made by the high school and college teachers who fashioned the description of these outcomes. Mathematics teachers pointed out, for example, that making place for newly important topics may involve shifting the traditional emphasis in the mathematics curriculum. Social studies teachers underlined that the learning outcomes in that subject are achieved most readily through a carefully designed sequence of courses that builds progressively on student skills, concepts, and factual knowledge. While foreign language teachers emphasized that language proficiency is achieved best by intensive and sustained study that begins as early as possible, mathematics teachers emphasized that the most effective preparation would include study of mathematics in the final year of high school. Such suggestions are, of course, only a beginning. Schools will need to devise their own coherent curricular and instructional strategies. . . . (p. 32)

"Action by Others Concerned With The Schools: Achieving these outcomes will require work by many others in addition to students, teachers, counselors, and school administrators. Boards of education and other officials responsible for educational policy will have to be aware of the preparation needed for college as they consider curricula, standards, and overall policy for the schools. They may have to reassess priorities and reallocate resources. Many secondary schools need additional financial support. Many need to add teachers in certain subjects. Well-trained teachers will be crucial to achieving the learning outcomes in all subjects.

"Solving these problems will require the commitment of local communities and of the public at large. It will be important to remember that our future well-being is bound up with the education of **all** children. The quality of education should be of concern to all, whether or not they have children in school.

"Concern for educational quality should be expressed in ways that advance social justice. Educational quality must not lead to actions that limit the aspirations and opportunities of disadvantaged and minority youth, or that would reverse the progress that has already been made. Rather, concern for educational quality must be expressed in a commitment to quality for all

students. Arbitrary standards must not be imposed without concern for enabling students to meet them. Expectations such as these learning outcomes should be used as criteria for designing educational efforts that will enable more students to succeed.

"Colleges will have a special role to play. They must recognize that many incoming students will not have had the chance to prepare adequately for higher education and that colleges will still have an obligation to meet the needs of such students. A decision to admit a student is, after all, an agreement to provide instruction at that student's current level of knowledge and skill. Colleges have special resources, particularly the learning and expertise of their faculties, that can help high schools strengthen the preparation of students for higher education. High schools may also find it useful to draw on the experience of successful college programs for serving inadequately prepared students. Such resources will be useful if they can be made available in a spirit of collegiality and cooperation. . . .

"Improving preparation for college can help improve the quality of high school education overall, whether or not students intend to enter college. Consequently, the Educational EQuality Project will be working to build alliances not only within education but also between education and others—particularly employers—who are concerned with how well high school students are educated." (pp. 33–34)

The study was supported by The College Board.

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New York, NY 10101

Action for Excellence: A Comprehensive Plan to Improve Our Nation's Schools*

The Task Force on Education for
Economic Growth
Education Commission of the States

The National Task Force on Education for Economic Growth is coordinated by the Education Commission of the States. Chaired by Governor James B. Hunt, Jr. of North Carolina, the 41-member task force released its report in May 1983.

The appendix accompanying the complete text provides a list of basic skills and competencies for productive employment. In developing the list, the Task Force draws heavily upon work done by The Center for Public Resources and Project EQuality of the College Board. In addition to the full report, ECS has prepared specialized brochures recommending action plans for all levels of policymakers.

The Challenge: New Skills for a New Age

"Technological change and global competition make it imperative to equip students in public schools with skills that go beyond the 'basics.' For productive participation in a society that depends ever more heavily on technology, students will need more than minimum competence in reading, writing, mathematics, science, reasoning, the use of computers, and other areas. Mobilizing the education system to teach new skills, so that new generations reach the high level of education on which sustained economic growth depends, will require new partnerships among all those who have a stake in education and economic growth. The challenge is not simply to better educate our elite, but to raise both the floor and the ceiling of achievement in America.

The Problem: Educational Deficits and Blurred Goals

"Education for economic growth demands progress on many fronts. Students need to improve their performance, particularly their mastery of higher order skills. Relieving the shortage of teachers at the point where quality and quantity intersect may require new strategies. So may strengthening the curriculum and improving the management of schools so principals can concentrate on academic matters. Inhibiting prog-

*Note: the synopsis presented here is the **Executive Summary: The Action Plan**, which appears as pp. 8-11 of the Task Force Report.

ress is the lack of clear consensus about how to improve education, especially since some prevailing policies (like lowered standards for college entrance and lessened emphasis on homework) work against excellence in education.

The Response: Recommendations of the Task Force

Action Recommendation #1: Develop—and put into effect as promptly as possible—state plans for improving education in the public schools from kindergarten through grade 12.

- Led by the governor, each state should develop a state plan for education and economic growth.
- Each governor should appoint a broadly inclusive state task force on education for economic growth.
- Each school district should develop its own plan.

Action Recommendation #2: Create broader and more effective partnerships for improving education in the states and communities of the nation.

- Business leaders, labor leaders, and members of the professions should become more active in education.
- Business leaders should establish partnerships with schools.
- Governors, legislators, chief state school officers, state and local boards of education, and leaders in higher education should establish partnerships of their own.

Action Recommendation #3: Marshal the resources which are essential for improving the public schools.

- School systems should enrich academic programs and improve management to make the best possible use of resources.
- States and communities should invest more financial, human and institutional resources in education.
- The federal government should continue to support education.

Action Recommendation #4: Express a new and higher regard for teachers.

- States and school districts—with full participation by teachers—should dramatically improve methods for recruiting, training, and paying teachers.
- States should create 'career ladders' for teachers.
- States, communities, the media and the business community should devise new ways to honor teachers.

Action Recommendation #5: Make the academic experience more intense and more productive.

- States and school systems should establish firm, explicit, and demanding requirements concerning discipline, attendance, homework, grades, and other essentials of effective schooling.
- States and school systems should strengthen the public school curriculum.
- States should increase the duration and the intensity of academic learning.

Action Recommendation #6: Provide quality assurance in education.

- Boards of education and higher education should cooperate with teachers and administrators on systems for measuring the effectiveness of teachers and rewarding outstanding performance.
- States, with full cooperation by teachers, should improve the process for certifying teachers and administrators and make it possible for qualified outsiders to serve in the schools.
- States should examine and tighten procedures for deciding which teachers to retain and which to dismiss.
- Student progress should be measured through periodic tests of general achievement and specific skills; promotion from grade to grade should be based on mastery, not age.
- States and communities should identify clearly the skills they expect the schools to impart.
- Colleges and universities should raise their entrance requirements.

Action Recommendation #7: Improve leadership and management in the schools.

- Principals should be squarely in charge of educational quality.
- Pay for principals should relate to responsibilities and effectiveness.
- States should set higher standards for recruiting, training, and monitoring the performance of principals.
- Schools should use more effective management techniques.

Action Recommendation #8: Serve better those students who are now unserved or underserved.

- States and school districts should increase the participation of young women and minorities in courses where they are under-represented.
- States should continue to develop equitable finance measures to insure that education resources are distributed fairly.
- States and school systems should identify and challenge academically gifted students.
- States, school systems, principals, teachers, and parents should work to reduce student absences and failures to finish school.
- States and school systems should specifically include handicapped students in programs for education and economic growth.

The Outlook: Can We Succeed?

"We can improve public education across the nation. Our resources are abundant. Our commitment to a broadly inclusive educational system has been demonstrated by the impressive reforms of the 1970s. And the substantial progress states and communities have already made in improving the quality of education is proof positive that we can indeed change education in deep and lasting ways. But the stakes are high, and our ultimate success will depend in large measure on our willingness to act. No task facing our nation matters more than to launch—now—the action plan set forth here."

The Members of the Task Force on Education for Economic Growth represent governors, state legislators, business leaders, labor, educators, and organization leaders. They are:

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America's Competitive Challenge: The Need for a National Response

A Report to the President of the United States
by The Business-Higher Education Forum

The Business-Higher Education Forum, a group representing corporate and university chief executives, established a 16-member Task Force in Spring of 1982. The Task Force was invited by the President of the United States "to explore ways in which our national competitive position could be further strengthened through increased innovation and productivity." During the year-long research and study effort, the Forum members reviewed past surveys and contemporary expertise which led to the report and recommendations for improvement "through the instruments of public policy." (p.v) In selecting excerpts we have focused primarily on education, although information is presented about other areas in order to provide a balanced presentation of the Forum's work.*

Introduction

"The central objective of the United States for the remainder of the decade must be to improve the ability of American industry and American workers to compete in markets at home and abroad. The new economic realities of global competition demand a broadly based national effort to make this possible. . . . [However], until citizens recognize that industrial competitiveness on an international scale is the key to economic growth, and until they appreciate that the overall well-being of society itself depends on such economic growth, we fear that little progress will be made.

"Developing that understanding will require leadership from all sectors of society—business, education, labor, as well as government. But the essential leadership can come from only one person: the President of United States. . . . (p. 1)

The Competitive Challenge

"The United States has experienced a prolonged period of economic difficulty. In the past 12 years, the nation has suffered three major recessions, each worse than the last. In 1982, more Americans were out of work than at any time since the Great Depression. Productivity growth has declined from earlier years. Trade and budget deficits have risen. Most importantly, a growing number of U.S. industries are less competitive than they were in the recent past—a decline that is simultaneously a cause and a con-

*Note: Unless otherwise indicated, the synopsis presented here is drawn primarily from the 15-page "The Report in Brief."

sequence of our economic malaise. . . . While the U.S. economy has remained relatively stagnant in recent years, other countries have made rapid gains. . . .

"Just as the new economic realities must be viewed from a broad perspective, so must the consequences of continuing decline. The repercussions of a stagnant economy go beyond the statistics that document lost market shares, decreased GNP and increased unemployment. A weak economy and an inadequately trained work force intrude upon our social and political well-being, adversely affecting the ability of the United States to deliver essential public services to its citizens, to maintain a strong national defense, and to improve the living standard of all its citizens. A weak economy is also the breeding ground for rigid and reactive public policy solutions to economic problems. . . . (pp. 2-3)

The Competitive Climate

"A nation's ability to compete depends on the vitality of three primary, interactive and interdependent elements: productive capital investment; technological innovation, ranging from basic research to the commercialization of new products and processes; and development of human resources. . . .

"Human resources are essential ingredients in the process of technological innovation and economic competitiveness. Yet the American work force may not be prepared for the new competitive challenges. Shortages are developing in critical skills, such as computer science and engineering; some industries are becoming less people-intensive, thus supplying fewer jobs; and one in every five American workers is functionally illiterate, unable to participate in even entry-level training. . . .

"Among the many factors contributing to the weakened vitality of America's capital investment, technological innovation and human resources, three are critical: disordered public policy-making; inflexible institutions; and a failure to organize knowledge for action. . . .

"Public policy-making affecting U.S. competitiveness is disordered and fragmented—creating a climate of uncertainty, instability, and recurring boomlets and declines for the private sector. . . .

"Inflexible institutions impair a nation's ability to compete. The new economic realities posed by the competitive challenge require nations not only to keep pace with accelerating technological, economic, social and international change—but to set the pace. America's public and private institutions—government, business, labor and education—have become barriers to the flexible response which is the key to the future prosperity.

". . . Education has given insufficient attention to developing the basic skills—math and science—that will be needed by workers in an age governed by high technology. . . . (pp. 3-6)

Recommendations

". . . The Forum believes additional, specific recommendations are not the primary requirement at this point. Rather, changes are needed that will elevate the competitive challenge to the top of the national agenda.

"Thus, the Forum makes only one overall recommendation: as a nation, we must develop a consensus that industrial competitiveness is crucial to our social and economic well-being. Such a consensus will require a shift in public attitudes about national priorities, as well as changes in public perceptions about the nature of our economic malaise. . . ." (p. 7)

The Forum also urges the President to appoint:

- a Presidential Adviser on Economic Competitiveness
- a National Commission on Industrial Competitiveness
- an Information Center on International Competitiveness (pp. 6-8)

The Next Steps

"American workers are the single most valuable economic resource the United States possesses. To ensure that these workers are adequately educated and trained, the United States needs a national strategy for education, training and retraining at all levels. . . .

Training and Retraining. "Today, between 3.5 and 4 million U.S. workers are structurally unemployed, that is, faced with the permanent loss of their jobs because of shifts in the economy. . . . If the United States is to maintain its ability to compete and avoid erecting political and economic barriers that will harm its longer-term economic well-being, it must help its workers adapt to rapid change. Today, national

efforts are uncoordinated—dispersed in a maze of 23 federal grant-in-aid programs, each having limited coverage, insufficient funds and bureaucratic restraints. . . ." (main report, p. 11)

Toward this need, the Forum makes several recommendations.

- "A single, coherent, comprehensive national displaced worker program is needed. Its basic characteristics must be simplicity, self-financing, maximum flexibility and broad coverage. The G.I. bill, with its educational 'vouchers,' provides a useful precedent. The program could be financed by a third trust fund in the unemployment insurance system—funded jointly by employers, workers and the federal government. . . .
- . . . Tax incentives . . . could stimulate additional investment in the education and training of workers. Such incentives should: (1) be built into the tax system to be used at the individual firm's discretion; (2) apply only to new efforts; (3) permit companies to determine their specific needs and the appropriate education or training sources (internal or external); and (4) have a minimum of bureaucratic red tape.
- To meet the needs of older displaced workers, training for specific jobs through apprentice programs would be useful. Increased government-university-industry cooperation and support would be necessary to mount a large effort of this type.
- An Individual Training Account (ITA), analogous to the Individual Retirement Account (IRA) and the President's proposed Education Savings Account, could be created to give individuals an incentive to save for their own training and retraining needs. . . .
- . . . New ways of attracting engineering students into teaching careers must be developed. One approach would be to provide special loans to U.S. graduate engineering students in return for commitment to teaching. The loans could be forgiven by a specified amount for each teaching year (e.g., 20 percent). Such a program could complement the proposed Presidential Young Investigator Awards.
- . . . Because graduates with science and math degrees are not attracted by the relatively low salaries in the teaching profession, many of those teaching science and math are not fully qualified. Their skills must be upgraded. The Forum supports the new federal programs proposed in the FY84 budget. However, the magnitude of the problem warrants the consideration of additional support from federal, state and local governments and the private sector to provide ongoing training to secondary school science and math teachers. (main report, pp. 11-12)

Private Sector Initiatives

"While changes in public policy are essential, they only establish the climate for private sector activities. The revitalization of the U.S. economy through competition ultimately depends on the degree to which private sector institutions capitalize on available opportunities.

"The following list of private sector initiatives is intended primarily to provide examples of the kinds of efforts that can be undertaken by businesses and institutions of higher education—working individually and together—to stimulate a renewal of American economic vitality, innovation and competitiveness." (p. 11)

Industry Initiatives . . . Supporting Education. "Industry can be of assistance to the educational system and, more importantly, to its own long-term interests by increasing its support of education. Key areas include:

- Support for sophisticated equipment
- Greater use of academicians as consultants.
- Greater support for university research, especially in neglected non-proprietary areas.
- Assistance in improving precollege education, particularly in science and mathematics." (p. 12)

University Initiatives. The Report suggests increased emphasis on teaching and research in several areas. They include:

- "Expanded study programs and curriculum requirements in the fields of foreign language, culture and sociopolitical institutions. . . .
- Centers for international study . . ." (pp. 12-13)

Industry-University Initiatives. "Working together, businesses and universities can pool talents and resources to accomplish what they could not achieve working independently. Potential benefits include the more expeditious transfer of research results to commercialization and the education of students on subjects relevant to industrial needs. Key areas include:

- Collaborative problem-oriented research should be encouraged.
- Industrial firms and universities should develop methods of accelerating commercialization, including the creation of new institutions and forms of cooperative relationships.
- Business and higher education should work with government to develop better data on trends in technological change and competitiveness for use in business and government policy-making." (pp. 11-13)

Human Resources—the Mismatch and Its Consequences

"If America's workers are to be better educated, better trained and more productive, a number of demographic and institutional trends must be explicitly addressed.

- "First, the growth of the American work force will slow dramatically in the next 20 years. Consequently, today's adults will still constitute over 90 percent of the work force in the year 1990 and over 75 percent of the work force in the year 2000.
- Second, the work force is aging. For example, the highly productive core of the work force—those aged 25-44—will expand from 46 percent of the work force in 1980 to over 56 percent by 1990. This trend offers substantial potential for increasing national productivity through improved labor quality—but only if these workers can be helped to acquire the proper skills in timely fashion.
- Third, two-thirds of all new entrants into the work force until 1995 will be women. In 1978, for the first time, more women enrolled in college than men. Further, women are receiving an ever-growing portion of advanced and doctoral degrees. The share of doctoral degrees awarded to women has more than doubled, from 13 percent in 1970 to 30 percent by 1980. Yet most institutions are ill-prepared to use the talents that will become available. Discrimination still exists with respect to recruitment into professional, managerial and non-traditional positions, as well as in social security and insurance benefits.
- Fourth, the problem of youth unemployment persists. Today, almost 20 percent of all youth who want to work are unemployed. This high unemployment rate reflects three main factors: increased competition for jobs; ineffective youth training, counseling and placement programs; and a high degree of functional illiteracy among the nation's youth, particularly minorities, which prohibits them from participating in entry-level training.
- Fifth, a significant segment of the work force is dysfunctional. As many as one in five American adults is functionally illiterate—unable to read, write and count. Almost 10 percent of the civilian work force are problem drinkers, and an unknown number of workers have drug-related problems. Together, problem drinking and drug addiction cost the economy $62 billion a year in increased employee-related medical costs and extra absenteeism.
- Sixth, although labor-quality improvements could substantially increase productivity growth, the nation's education and training institutions and employment and training policies are not prepared to capitalize on this potential. One major barrier to effective policy-making and program administration is the absence of reliable information on present and anticipated job vacancies; their location; the education and training required for those jobs; and the likely size of the gap between the available jobs and available workers." (main report, pp. 22-23)

Task Force members from the Business-Higher Education Forum represent business, higher education, and professional associations. They are:

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High School: A Report on Secondary Education in America*

Ernest L. Boyer
The Carnegie Foundation for the Advancement of Teaching

The study, authored by Ernest L. Boyer, was advised by a 28-member panel. Assisted by a site visit team that spent over 2,000 hours in 15 public high schools across the United States, the study also draws upon the data bases of **High School and Beyond** *(NCES) and* **A Place Called School** *(Goodlad). The report includes an historical perspective on the evolution of the American high school and report card on how our schools are doing. Appendices include descriptions of the high schools visited, a list of the site observers, and an extensive set of bibliographic references.*

Prologue: The Globe, The Nation, and Our Schools

"Education is in the headlines once again. After years of shameful neglect, educators and politicians have taken the pulse of the public school and found it faint. Concern for the health of public education, stirred by a spate of new studies, offers fresh hope that in the years ahead we'll be able to adopt a serious, coherent plan for school reform. Getting the public's attention always has been the first step in the march toward progress in our nation.

"This Carnegie report on the American high school begins with the conviction that the time for renewing education has arrived. We believe that today America has the best opportunity it will have in this century to improve the schools. There is a growing national consensus that our future depends on public education. There is a spreading awareness that every mind is a precious resource we cannot afford to waste. There is an eagerness to move beyond the alarming headlines; to begin to rebuild, with confidence, the public schools. As in the past, a new and more compelling vision of education is required to meet this challenge. And if we do not seize this special moment, we will fail the coming generation and the nation. . . . (p. 1)

"The success or failure of the American high school will determine the quality of our

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democracy, the strength of our economy, the security of our defense, and the promise of our ideals. The time has come for America to stand behind its belief in public education.

"This report has identified twelve key strategies for achieving high quality in education: clear goals, the mastery of language, a core of common learning, preparation for work and further education, school and community service, better teachers, improved instruction, effective use of technology, flexible school patterns, strong leadership, connections with colleges and with corporations, and a renewed public commitment to the nation's schools. Obviously, money alone cannot make these strategies succeed, but neither can they succeed without cost. Quality has its price. . . .

"There should never be a child—let alone a generation of children—who passes through our schools unawakened and unprepared for what will come. Educating a new generation of Americans to their full potential is still our most compelling obligation.

"Every morning at 8 a.m. the doors of America's high schools are opened. Walk inside and look into the future of the nation. . . ." (p. 297)

The following excerpts which appear as the final chapter of the report, bring together the major themes and key recommendations of the study.

High School: An Agenda For Action

"The world has changed, irrevocably so, and quality education in the 1980s and beyond means preparing all students for the transformed world the coming generation will inherit. To achieve this goal, a comprehensive school-improvement program must be pursued urgently. Without excellence in education, the promise of America cannot be fulfilled. We have identified twelve priorities that, taken together, provide an agenda for action.

I. Clarifying Goals

"A high school, to be effective, must have a clear and vital mission. Educators must have a shared vision of what, together, they are trying to accomplish. That vision should go beyond keeping students in school and out of trouble, and be more significant than adding up the Carnegie course units the student has completed. Specifically, we recommend:

- Every high school should establish clearly stated goals—purposes that are widely shared by teachers, students, administrators and parents.
- School goals should focus on the mastery of language, on a core of common learning, on preparation for work and further education, and on community and civic service.

II. The Centrality of Language

"The next priority is language. Formal schooling has a special obligation to help all students become skilled in the written and oral use of English. Those who do not become proficient in the primary language of the culture are enormously disadvantaged in school and out of school as well. The following recommendations are proposed:

- Elementary school should build on the remarkable language skills a child already has acquired. In the early grades, students should learn to read and comprehend the main ideas in a written work, write standard English sentences and present their ideas orally.
- The English proficiency of all students should be formally assessed before they go to high school. A pre-high school summer term and an intensive freshman year remediation program should be provided for students who are deficient in the use of English.
- Clear writing leads to clear thinking; clear thinking is the basis of clear writing. Therefore, all high school students should complete a basic English course with emphasis on writing. Enrollment in such classes should be limited to twenty students, and no more than two such classes should be included in the teacher's regular load.
- The high school curriculum should also include a study of the spoken word. Speaking and listening are something more than the mere exchange of information. Communication at its best should lead to genuine understanding.

III. The Curriculum Has a Core

"A core of common learning is essential. The basic curriculum should be a study of those consequential ideas, experiences, and traditions common to all of us by virtue of our membership in the human family at a particular moment in history. The content of the core curriculum must extend beyond the specialties, and focus on

more transcendent issues, moving from course to coherence. The following are recommended:

- The number of required courses in the core curriculum should be expanded from one-half to two-thirds of the total units required for high school graduation.
- In addition to strengthening the traditional courses in literature, history, mathematics and science, emphasis should also be given to foreign language, the arts, civics, non-Western studies, technology, the meaning of work, and the importance of health.

Highlights of the core curriculum are as follows:

Literature: All students, through a study of literature, should discover our common literary heritage and learn about the power and beauty of the written word.

United States History: United States history is required for graduation from all the high schools included in our study, and it is the one social studies course uniformly required by most states. We favor a one-year United States history course that would build on the chronology of the emergence of America, including a study of the lives of a few influential leaders—artists, reformers, explorers who helped shape the nation.

Western Civilization: Beyond American history lies the long sweep of Western Civilization. We recommend that all students learn about the roots of our national heritage and traditions through a study of other cultures that have shaped our own.

Non-Western Civilization: All students should discover the connectedness of the human experience and the richness of other cultures through an in-depth study of the non-Western world. Specifically, we suggest a one-semester required course in which students study, in considerable detail, a single non-Western nation.

Science and the Natural World: The study of science introduces students to the processes of discovery—what we call the scientific method—and reveals how such procedures can be applied to many disciplines and to their own lives. We suggest a two-year science sequence that would include basic courses in the biological and physical sciences.

Technology: All students should study technology: the history of man's use of tools, how science and technology have been joined, and the ethical and social issues technology has raised.

Mathematics: In high school, all students should expand their capacity to think quantitatively and to make intelligent decisions regarding situations involving measurable quantities. Specifically, we believe that all high schools should require a two-year mathematics sequence for graduation and that additional courses be provided for students who are qualified to take them.

Foreign Language: All students should become familiar with the language of another culture. Such studies should ideally begin in elementary school and at least two years of foreign language study should be required of all high school students. By the year 2000, the United States could be home to the world's fifth largest population of persons of Hispanic origin. It does seem reasonable for all schools in the United States to offer Spanish.

The Arts: The arts are an essential part of the human experience. They are not a frill. We recommend that all students study the arts to discover how human beings use nonverbal symbols and communicate not only with words but through music, dance, and the visual arts.

Civics: A course in American government—traditionally called civics—should be required of all students, with focus on the traditions of democratic thought, the shaping of our own governmental structures, and political and social issues we confront today.

Health: No knowledge is more crucial than knowledge about health. Without it, no other life goal can be successfully achieved. Therefore, all students should learn about the human body, how it changes over the life cycle, what nourishes it and diminishes it, and how a healthy body contributes to emotional well-being.

Work: The one-semester study of work we propose would ask how attitudes toward work have changed through the years. How do they differ from one culture to another? What determines the status and rewards of different forms of work? Such a curriculum might also include an in-depth investigation of one specific occupation.

- All students, during their senior year, should complete a Senior Independent Project, a written report that focuses on a significant social issue and draws upon the various fields of study in the academic core.

IV. Transition: To Work and Learning

"The high school should help all students move with confidence from school to work and further education. Today, we track students into programs for those who 'think' and those who 'work,' when, in fact, life for all of us is a blend of both. Looking to the year 2000, we conclude that, for most students, twelve years of schooling will be insufficient. Today's graduates will change jobs several times. New skills will be required, new citizenship obligations will be confronted. Of necessity, education will be lifelong. We recommend:

- The school program should offer a single track for all students, one that includes a strong grounding in the basic tools of education and a study of the core curriculum. While the first two years would be devoted almost exclusively to the common core, a portion of this work would continue into the third or fourth year.
- The last two years of high school should be considered a 'transition school,' a program in which about half the time is devoted to 'elective clusters.'
- The 'elective cluster' should be carefully designed. Such a program would include advanced study in selected academic subjects, the exploration of a career option, or a combination of both.
- In order to offer a full range of elective clusters, the high school must become a connected institution. Upper-level specialty schools (in the arts or science or health or computers, for example) may be appropriate in some districts. High schools should also establish connections with learning places beyond the schools—such as libraries, museums, art galleries, colleges and industrial laboratories.

"There is also an urgent need to help students figure out what they should do after graduation. Therefore, we recommend:

- Guidance services should be significantly expanded. No counselor should have a case load of more than one hundred students. Moreover, school districts should provide a referral service to community agencies for those students needing frequent and sustained professional assistance.
- A new Student Achievement and Advisement Test (SAAT) should be developed, one that could eventually replace the SAT. The academic achievement portion of the test would be linked to the core curriculum, evaluating what the student has learned. The advisement section would assess personal characteristics and interests to help students make decisions more intelligently about their futures. The purpose is not to screen students out of options but to help them move on with confidence to colleges and to jobs.

"The needs of the students for guidance are matched by the need of the school to be better informed about its graduates. To achieve this, the following is proposed:

- The United States Department of Education—working through the states—should expand its national survey of schools to include a sampling of graduates from all high schools at four-year intervals to learn about their post-high school placement and experience. Such information should be made available to participating schools.

V. Service: The New Carnegie Unit

"Beyond the formal academic program the high school should help all students meet their social and civic obligations. During high school young people should be given opportunities to reach beyond themselves and feel more responsibly engaged. They should be encouraged to participate in the communities of which they are a part. We recommend:

- All high school students should complete a service requirement—a new Carnegie unit—that would involve them in volunteer work in the community or at school. Students could fulfill this requirement evenings, weekends and during the summer.
- Students themselves should be given the responsibility to help organize and monitor the new service program and to work with school officials to assure that credit is appropriately assigned.

VI. Teachers: Renewing the Profession

"The working conditions of teachers must improve. Many people think teachers have soft, undemanding jobs. The reality is different. Teachers are expected to work miracles day after day and then often get only silence from the students, pressure from the principal, and criticism from the irate parent. To improve working conditions of the teachers, we propose the following:

- High school teachers should have a daily teaching load of four regular class sessions. In addition, they should be responsible one period each day for small seminars and for helping students with independent projects.
- Teachers should have a minimum of sixty minutes each school day for class preparation and record keeping. The current catch-as-catch-can 'arrangement' is simply not good enough.
- Teachers should be exempt from routine monitoring of halls, lunchrooms, and recreation areas. School clerical staff and parent and student volunteers should assume such non-instructional duties.
- A Teacher Excellence Fund should be established in every school—a competitive grant program to enable teachers to design and carry out a special professional project.
- Good teachers should be given adequate recognition and rewards—from a student's 'thank you,' to cash awards, to active support from parents. Outstanding teachers also should be honored annually in every school district, and, statewide, by the governor and the legislature, newspapers and other businesses in each community.
- Teachers should be supported in the maintenance of discipline based on a clearly stated code of conduct.

"Teachers' salaries should be increased. When teachers' salaries are compared to those of other professionals, the contrast is depressing. For many teachers, moonlighting has become essential. Salaries for teachers must be commensurate with those of other professions, and with the tasks teachers must perform.

- As a national goal, the average salary for teachers should be increased by at least 25 percent beyond the rate of inflation over the next three years, with immediate entry-level increases.

"Outstanding students should be recruited into teaching. We cannot have gifted teachers if gifted students do not enter the classrooms of the nation. When salaries and working conditions improve, prospects for recruiting talented young people will improve as well. We propose:

- Every high school should establish a cadet teacher program in which high school teachers identify gifted students and encourage them to become teachers. Such students should be given opportunities to present information to classmates, tutor other students who need special help, and meet with outstanding school and college teachers. Also some districts may wish to establish a magnet school for prospective teachers.
- Colleges and universities should establish full tuition scholarships for the top 5 percent of their gifted students who plan to teach in public education. These scholarships would begin when students are admitted to the teacher preparation program at the junior year.
- The federal government should establish a National Teacher Service, especially for those who plan to teach in science and mathematics. This tuition scholarship program would be for students in the top one-third of their high school graduating classes. Students admitted to the National Teacher Service would be expected to complete successfully an academic program and teach at least three years in the public schools.

"The schooling of teachers must improve. There are serious problems with the education of our teachers. Many teacher training programs are inadequate. The accreditation of schools of education is ineffective. The careful selection of teacher candidates is almost nonexistent, and college arts and science departments fail to recognize the critical role they play in teacher preparation. The following is proposed:

- Prospective teachers should complete a core of common learning, one that parallels in broad outline the high school core curriculum proposed in this report.
- Every teacher candidate should be carefully selected. Formal admission to teacher training should occur at the junior year, the time when students begin a three-year teacher preparation sequence. Only students with a cumulative grade point average of 3.0 (B) or better and who have strong supportive recommendations from two professors who taught them in a required academic course should be admitted.
- Once admitted to the program, the teacher candidate should devote the junior and senior years to the completion of a major, plus appropriate electives. Every secondary school teacher should complete a sharply focused major in one academic discipline, not in education. During the junior and senior years, time also should be scheduled for prospective teachers systematically to visit schools.
- After grounding in the core curriculum and a solid academic major, prospective teachers

should have a fifth-year education core built around the following subjects: Schooling in America, Learning Theory and Research, The Teaching of Writing, and Technology and Its Uses.

- The fifth year also should include classroom observation and teaching experience. This is the best way, we believe, to learn about students and to develop effective methods of instruction.
- In addition, the fifth year of teacher preparation should include a series of six one-day common learning seminars in which students meet with outstanding arts and science scholar-teachers who would relate the knowledge of their fields to a contemporary political or social theme. Such seminars would help provide the interdisciplinary perspective every high school teacher must acquire.

"The continuing education of the teacher must be strengthened. We cannot expect a teacher trained twenty years ago to prepare students to live forty years into the future with no policy of systematic continued education for the teacher. Even the most dedicated teacher will fall behind, and students will learn how to live, not in the future, but in the past. School boards must accept lifelong learning as an essential condition for every teacher.

- A two-week Teacher Professional Development Term should be added to the school year, with appropriate compensation. This term for teachers would be a time for study, a period to improve instruction and to expand knowledge. The planning of such a term should be largely controlled by teachers at the school or district level.
- Every school district should establish a Teacher Travel Fund to make it possible for teachers, based on competitive application, to travel occasionally to professional meetings to keep current in their fields.
- Every five years, teachers should be eligible to receive a special contract—with extra pay to match—to support a Summer Study Term. To qualify and compete for this extended contract, each teacher would prepare a study plan. Such a plan would be subject to review and approval both by peers and by the school and district administrations.

"A career path for teachers should be developed. Two of the most troublesome aspects of the teaching profession today are the lack of a career ladder and the leveling off of salaries. The irony is that to 'get ahead' in teaching, you must leave it. Good teachers must be recognized and move forward within the profession, not outside it. Our proposals for restructuring the teaching career are these:

- The credentialing of teachers should be separated from college preparation. To qualify for a credential, each candidate should submit letters of recommendation from members of the faculty in his or her academic major, from faculty in his or her education sequence, and from a teacher who has supervised his or her school internship.
- Before being credentialed, the candidate would also pass a written examination administered by a Board of Examiners to be established in every state. The majority membership on such a board should be composed of senior classroom teachers.
- After credentialing, a career path based on performance should be available to the teacher, moving from associate teacher to senior teacher.
- With each professional advancement, salary increases should be provided. Such increases would be in addition to cost-of-living and merit pay earned within the ranks.
- The evaluation of teacher performance should be largely controlled by other teachers who themselves have been judged to be outstanding in the classroom.

"Skilled professionals should be recruited to teach part-time in the nation's classrooms. More flexible arrangements will be needed to permit highly qualified nonacademic professionals to teach. Such 'teachers' could serve in those fields where shortages exist—such as math and science—and provide enrichment in other fields as well. We recommend that:

- School districts should establish a lectureship program to permit qualified nonacademic professionals to teach on a part-time basis. Such teachers would devote most of their time to their regular jobs—in business or government or law or medicine—while also contributing significantly to education.
- School districts should look to recently retired personnel—college professors, business leaders, and others—who, after brief orientation, could teach part-time in high-demand subjects.
- School districts should enter into partnerships with business and industry to create joint appointments. In this way, two-member teacher

teams could be created with one member of the team teaching in school for a year or two while the other works at a nonschool job. Then the cycle could be reversed.

- In-and-out teaching terms should be established—permitting a professional to teach for one to three years, step out, and then return for another one-to-three-year term.
- A Part-Time Practitioner Credential should be created in every state to put in place the recommendations we propose.

VII. Instruction: A Time for Learning

"Much about good pedagogy is familiar. There remain, however, some old-fashioned yet enduring qualities in human relationships that still work: contagious enthusiasm, human sensitivity, optimism about the potential of the students. Improving instruction requires a variety of changes. We make the following recommendations:

- Teachers should use a variety of teaching styles—lecturing to transmit information, coaching to teach a skill and Socratic questioning to enlarge understanding. But there should be particular emphasis on the active participation of the student.
- For classroom instruction to be effective, expectations should be high, standards clear, evalution fair, and students should be held accountable for their work.
- Textbooks seldom communicate to students the richness and excitement of original works. The classroom use of primary source materials should be expanded.
- States should ease their control over the selection of textbooks and transfer more authority to the district and local school. Teachers should have a far greater voice in selecting materials appropriate to their own subject areas.

VIII. Technology: Extending the Teacher's Reach

"Technology, particularly computers, can enrich instruction. But educators are confused about precisely what the new machines will do. The strategy seems to be buy now, plan later. The absence of computer policy is itself a policy with major risks. A number of important steps should be taken to link computers to school objectives.

- No school should buy computers, or any other expensive piece of hardware, until key questions have been asked—and answered. Why is this purchase being made? Is available software as good as the equipment? What educational objectives will be served? Which students will use the new equipment, when, and why?
- In purchasing computers, schools should base their decisions not only on the quality of the equipment, but also on the quality of the instructional material available. School districts also should take into account the commitment of the computer company to work alone—or in collaboration with other companies—to develop instructional materials for schools.
- Every computer firm selling hardware to the schools should establish a Special Instructional Materials Fund. Such a fund would be used to develop, in consultation with classroom teachers, high-quality, school-related software.
- For technology to be used effectively, teachers must learn about the new equipment. Computer companies should provide technology seminars for teachers to keep them up-to-date on the uses of computers as a teaching tool.
- A National Commission on Computer Instruction should be named by the Secretary of Education to evaluate the software now offered for school use and propose an ongoing evaluation procedure that would be available to the schools. Outstanding teachers should comprise an important segment of such a panel.
- Federal funds should be used to establish ten Technology Resource Centers on university campuses—one in each major region of the nation. These centers would assemble, for demonstration, the latest technology. Also, federally funded regional networks should be developed to make computerized library services available to all schools.
- Schools should relate computer resources to their educational objectives. Specifically, all students should learn **about** computers; learn **with** computers; and, as an ultimate goal, learn **from** computers. The first priority, however, should not be hands-on experience, but rather educating students about the social importance of technology, of which the computer is a part.

"Prospects for a technology revolution in education go far beyond computers. Through the use of television, films, video cassettes, the classroom can be enormously enriched. In this connection, we recommend:

- School districts with access to a cable channel should use the facility for school instruction and a district-wide plan for such use should be developed.
- All commercial television networks should set aside prime-time hours every week to air programs for education and thereby indirectly enrich the school curriculum.
- A National Film Library should be established with federal support. This resource center would secure outstanding film and television programs, both commercial and public offerings, index and edit them, and make them available for school use.

IX. Flexibility: Patterns to Fit Purpose

"Our next priority is flexibility. There are many different high schools in the United States, with many different students. Greater flexibility in school size and the use of time will help schools achieve, more effectively, their educational objectives. The urgent need is not more time but better use of time. The following is proposed:

- The class schedule should be more flexibly arranged to permit larger blocks of instructional time, especially in courses such as a laboratory science, a foreign language, and creative writing.
- Small high schools should expand their education offerings by using off-campus sites or mobile classrooms or part-time professionals to provide a richer education for all students.
- Large high schools, particularly those with over 2,000 students, should organize themselves into smaller units—'schools-within-schools'—to establish a more cohesive, more supportive social setting for all students.

"Gifted and talented students represent a unique challenge if they are to realize their potential. Therefore, we suggest:

- Every high school should develop special arrangements for gifted students—credit by examination, independent study, and accelerated programs.
- A network of Residential Academies in Science and Mathematics should be established across the nation. Some academies might be within a densely populated district. Others might serve an entire state. A residential school may serve several states. Academies might be located on college campuses. Such schools should receive federal support since clearly the vital interests of the nation are at stake.

"Special arrangements are also needed for students at the other end of the education spectrum. Year after year, about one out of every four students who enroll in school drops out before graduation. This nation cannot afford to pay the price of wasted youth. We recommend:

- Federally supported remedial programs—most of which have been concentrated in the early grades—have demonstrated that improvements can be made in the academic achievement of even the most disadvantaged child. Therefore, the federally funded Elementary and Secondary Education Act (Title I) should be fully funded to support all students who are eligible to participate in this effective program.
- Every high school district, working with a community college, should have a reentry school arrangement to permit dropouts to return to school part time or full time or to engage in independent study to complete their education.

X. The Principal as Leader

"What we seek are high schools in which the school community—students, teachers, and principals—sees learning as the primary goal. In such a community, the principal becomes not just the top authority but the key educator, too. Rebuilding excellence in education means reaffirming the importance of the local school and freeing leadership to lead. We make the following recommendations:

- The principal should be well prepared. The basic preparation should follow that of teachers.
- A principal should complete all requirements for licensing as a teacher and serve a year as an 'administrative intern.' At least two years as an assistant principal should be served before one could assume a full principalship.
- Principals and staff at the local school should have more control over their own budgets, operating within guidelines set by the district office. Further, every principal should have a School Improvement Fund, discretionary money to provide time and materials for program development and for special seminars and staff retreats.
- Principals should also have more control over the selection and rewarding of teachers. Acting in consultation with their staffs, they should be given responsibility for the final choice of teachers for their schools.
- In order to give principals time to reflect upon

their work and stay in touch with developments in education, a network of Academies for Principals should be established.

XI. Strengthening Connections

"High schools do not carry on their work in isolation. They are connected to elementary and junior high schools and to higher education. In the end, the quality of the American high school will be shaped in large measure by the quality of these connections. School-college relationships can be improved in a variety of ways:

- All states should establish a School-College Coordination Panel to define the recommended minimum academic requirements to smooth the transfer from school to public higher education.
- Every high school in the nation should offer a 'university in the school' program and a variety of other arrangements—credit by examination, early admission and advanced placement—to permit able students to accelerate their academic programs.
- Each college or university should form a comprehensive partnership with one or more secondary schools.

"Schools need the help of industry and business, and business needs the schools. The quality of work is linked to the quality of education. The following school-business partnerships are proposed:

- Businesses should provide help for disadvantaged students through volunteer tutorial and family counseling service, and support special school and part-time apprenticeship experience for high-risk students.
- Businesses should provide enrichment programs for gifted students, especially those in science and mathematics, and for those in the new technologies.
- Businesses should provide cash awards for outstanding teachers. In addition, they should consider establishing Endowed Chair Programs in the schools, and summer institute arrangements.
- Corporate grants should provide sabbaticals to outstanding principals and a discretionary fund for principals to work with teachers on creative programs. Further, large corporations should donate the use of their training facilities for a week or two each year to house an Academy for Principals.
- To help schools improve their physical plant and science laboratories, business should sponsor a facilities and equipment program. In addition, appropriate industries should conduct inventories of science laboratories and help upgrade school equipment.

XII. Excellence: The Public Commitment

"Finally, school improvement is dependent on public commitment. How we as a nation regard our schools has a powerful impact on what occurs in them. Support for schools can take many forms, and it must come from many sources. Citizens, local school boards, state agencies and legislatures, and the federal government must work together to help bring excellence to our public schools. A number of steps are imperative:

- Parent-Teacher-Student Advisory Councils should be established at all schools. Further, a Parent Volunteer Program should be organized to tutor students, provide teacher aides, and other administrative, counseling, and clerical support.
- Parents should become actively involved in school board elections, attend meetings, and be willing to serve as members of the board.
- Boards of education should hold special meetings with representatives of the schools in their districts—principals and teachers—at least once a year.
- A network of community coalitions—Citizens for Public Schools—should be formed across the nation to give leadership in the advocacy of support for public education.
- The states should recognize that their overriding responsibility to the schools is to establish general standards and to provide fiscal support, but not to meddle. The state education law should be revised to eliminate confusing and inappropriate laws and regulations.

"To achieve excellence in education the federal government also must be a partner in the process. In this report, we propose that funding of Title I of the Elementary and Secondary Education Act be increased to support all eligible students. We call for a National Teacher Service and a federally-funded network of Residential Academies in Science and Mathematics. We recommend that the federal government help create a National Film Library for schools and that a network of Technology Resource Centers be established with federal support to teach teachers about technology and its uses.

"There is yet another urgent school need that calls for a national response. Many of our public schools have fallen into disrepair. Laboratory equipment is in poor shape. The situation is as alarming as the decay of our highways, dams and bridges. Federal action is needed now to help meet an emergency in the schools. We propose:

- A new School Building and Equipment Fund should be established, a federal program that would provide short term, low interest loans to schools for plant rehabilitation and for the purchase of laboratory equipment.

"No one reform can transform the schools. The single solution, the simple answer, may excite a momentary interest but the impact will not last.

"In this report we have tried to think inclusively, and to search out interconnected solutions to the schools' interconnected problems. The result is something that is at once a yardstick to measure the need for reform and an agenda for action to bring about that reform.

"Not every recommendation we present is appropriate for every school. Each institution will have its own agenda for renewal. What is important is that all high schools take steps to achieve excellence and that this effort be sustained.

"We conclude this report on the American high school with the conviction that the promise of public education can be fulfilled and that, as a nation, we will meet the challenge." (pp. 301-319)

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Making the Grade*

Report of the Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy

The Twentieth Century Fund, an independent research foundation, sponsored a one and one half year study by an 11-member Task Force on Federal Elementary and Secondary Education Policy. The Task Force, which was chaired by Robert Wood, released their report in May 1983. The report is accompanied by a very thorough discussion paper by Paul E. Peterson.

"The nation's public schools are in trouble. By almost every measure—the commitment and competency of teachers, student test scores, truancy and dropout rates, crimes of violence—the performance of our schools falls far short of expectations. To be sure, there are individual schools and school districts with devoted teachers doing a commendable job of educating their students, but too many young people are leaving the schools without acquiring essential learning skills and without self-discipline or purpose. . . .

"This Task Force believes that this threatened disaster can be averted only if there is a national commitment to excellence in our public schools. While we strongly favor maintaining the diversity in educational practices that results from the decentralization of the schools, we think that schools across the nation must at a minimum provide the same core components to all students. These components are the basic skills of reading, writing, and calculating; technical capability in computers; training in science and foreign languages; and knowledge of civics, or what Aristotle called the education of the citizenry in the spirit of the polity.

"As we see it, the public schools, which constitute the nation's most important institution for the shaping of future citizens, must go further. We think that they should ensure the availability of large numbers of skilled and capable individuals without whom we cannot sustain a complex and competitive economy. They should foster understanding, discipline, and discernment, those qualities of mind and temperament that are the hallmarks of a civilized polity and that are essential for the maintenance of

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domestic tranquility in a polyethnic consititutional democracy. And they should impart to present and future generations a desire to acquire knowledge, ranging from the principles of science to the accumulated wisdom and shared values that derive from the nation's rich and varied cultural heritage.

"These are admittedly formidable tasks that too few schools today come close to accomplishing. The Task Force believes that the schools must make a concerted effort to improve their performance and that there is a clear national interest in helping schools everywhere to do so. That interest can be asserted and dramatized most effectively by the federal government. The federal government, after all, is charged with providing for the security and well-being of our democratic society, which rest largely on a strong and competent system of public education. It is in the best position to focus public attention on the vital importance of quality in our schools and to support its attainment. The federal government should be able to foster excellence in education, serving as a firm but gentle goad to states and local communities without impeding or restricting state and local control of and accountability for the schools. (pp. 3-4)

Excessive Burdens

"Before putting forward our proposals for a new federal policy on elementary and secondary schooling, we think it useful to identify what has gone wrong. Why, despite spending more per student than every other advanced nation, is there a growing gap between the goals and achievements of our schools? Many developments—economic, demographic, social, political—have contributed, directly and indirectly. We have always demanded a great deal of our schools, but never before have we demanded of them as much as we have over the past thirty years. On one hand we have charged them with being the melting pot, the crucible for dissolving racial divisiveness, and on the other for sustaining, and even exalting, ethnic distinctiveness.

"The schools, moreover, have had to provide a wide array of social services, acting as surrogate parent, nurse, nutritionist, sex counselor, and policeman. At the same time, they are charged with training increasing percentages of the nation's youth, including large numbers of hard-to-educate youngsters, to improved levels of competency so that they can effectively enter a labor market in which employers are currently demanding both technical capability and the capacity to learn new skills. In essence, the skills that were once possessed by only a few must now be held by the many if the United States is to remain competitive in an advancing technological world.

"Demographic changes as well as changes in attitudes toward traditional mores and values have also had a marked influence. The schools have had to cope with more children, and especially more problem children, than ever before—those who are without the rudiments of English and those who are unmotivated or prone to violence, quite apart from those who are physically handicapped. Problems have also come about as a result of the ready availability of drugs, the growing number of family breakups and the increased permissiveness in those remaining intact, the distractions of television and of easily affordable video games, the growth of underworld culture.

"The difficulties of coping with these burdens have been compounded in some cities by inappropriate judicial intervention and by the spread of the trade-union mentality that has accompanied the bureaucratization and politicization of the schools. As a consequence, already large administrative staffs have burgeoned, and new rules and procedures have been promulgated, forcing classroom teachers to spend more time on paperwork and less on teaching. The rise in teacher and administrative unions has thus helped transform what had been a noble though poorly compensated profession into a craft led by collective bargaining organizations with a focus on bread-and-butter issues—wages, working conditions, and job security (for which, read seniority). . . . (pp. 3-4)

The Federal Presence

"In recent years the federal executive and legislative branches have enlarged their roles. In the view of some critics, federal intervention looms so large that it has not only overstepped constitutional limitations but bears responsibility for most of the failings of the schools. We consider these criticisms exaggerated. True, since 1965, with the passage of the Elementary and Secondary Education Act (ESEA), the executive branch has intervened, by law and by regulation, in many school activities, tilting the allocation of resources to compensatory education and affirmative action programs. But the achievements of some federal activities must be acknowledged. Its Title I program as well as Head Start have

been particularly successful, especially among children in elementary schools where these programs were concentrated. . . .

". . . This Task Force believes that educating the young is a compelling national interest, and that action by the federal government can be as appropriate as action by state and local governments. Certainly, federal intervention was not only appropriate but necessary in bringing about desegregation of the public schools, and in providing needed assistance to poor and handicapped children.

"All too often, though, the nature of federal intervention has been counterproductive, entailing heavy costs and undesirable consequences. Direct federal outlays accounted, at their peak, for less than 10 percent of total annual spending on the schools, but by resorting to compulsory regulation and mandated programs, the federal government has swelled school bureaucracies, imposed dubious and expensive procedures, and forced state and local governments to reallocate substantial portions of their scarce revenues. What is more, its emphasis on promoting equality of opportunity in the public schools has meant a slighting of its commitment to educational quality. Thus, the federal government has not only had a pervasive influence on the spending of local school districts but has undoubtedly played a part in many of the other troubles of the schools.

"Despite all of its shortcomings, however, there is a need for a continued federal role, in part because equality and excellence are not mutually exclusive objectives. We think that both objectives should be vigorously pursued through a fresh approach, one that reflects the national concern for a better-educated America and that strikes a reasonable and effective balance between quality and equality. The federal government must continue to help meet the special needs of poor and minority students while taking the lead in meeting the general and overwhelming need for educational quality. Federal education policy must function, moreover, in ways that complement rather than weaken local control. This calls for a change in direction, replacing the current emphasis on regulations and mandates with a new emphasis on incentives. (pp. 5-7)

The Federal Commitment

"Although Congress has from time to time acknowledged the essential need for public education and even for specific kinds of education, it has refrained, apparently deliberately, from addressing the issue of educational quality. This matter, with good reason, was left to the discretion of the states and localities. The control of public education, even though subject to constitutional restriction, is exercised by thousands of school boards and school superintendents within a legal framework set up by fifty different state legislatures. There has been no one place—and we do not think there should be—in which a national policy defines the correct school curriculum or the proper qualifications for teachers, or sets forth the precise duration of the school day or year. These are matters that traditionally have been left to lay citizens, reinforced by the advice and counsel of professional educators or schools of education. We believe it should remain that way.

"The genius of our decentralized arrangements is that we have managed to forge a national education system that allows room for variations and even for disagreements. This is not to say that the Task Force is satisfied with the performance of local school districts. To the contrary, we believe that the vast majority must do much better. But because learning depends upon intangibles—the leadership provided by a school principal, the chemistry between teachers and students, the extent of parental involvement and support—we strongly favor leaving control over schooling at the local level. . . . (pp. 7-8)

Quality of Leadership

"This Task Force calls on the executive and legislative branches of the federal government to emphasize the need for better schools and a better education for all young Americans. We have singled out a number of specific areas in which the federal government, mainly through a series of incentives, can act to improve the quality of education in the public schools. Most of our proposals are directed toward improving the quality of teaching, ensuring proficiency in English while developing fluency in foreign languages, and promoting ways to increase proficiency in mathematics and science. . . . (pp. 8-9)

Quality of Teachers

"The traditional commitment of teachers to quality education has been challenged by many forces, some that have affected all of society, others that are peculiar to the community of educators. The teacher—along with all other

authority figures—does not appear to command the respect commonly accorded a generation ago. The complex organizational structure in which the classroom teacher now operates restricts independence and autonomy; as new organizational positions have proliferated, many of the best teachers have been 'promoted' to better paying administrative positions, devaluing the status of the teacher. In addition, the organizations—the unions and professional associations—to which teachers belong have protected their weakest members rather than winning rewards for their strongest. They have promoted the principle of equal pay or, at best, a differential pay scale that primarily takes into account educational background and seniority, thereby limiting the financial incentives available for rewarding superior professional work. . . .

"Because the institutional arrangements and procedures governing teachers are so well entrenched, incremental changes in federal policy cannot by themselves dramatically improve the quality of instruction. The Task Force is convinced that what is required is a major federal initiative that unmistakably emphasizes the critical importance of quality teachers in our schools. **We propose the establishment of a National Master Teachers Program, funded by the federal government, that recognizes and rewards teaching excellence**. . . . (p. 9)

"Rather than spell out the details of the proposed program, we have set down the guidelines we think should be followed. We recommend the adoption of an incentive approach, establishing clear criteria for teachers of exceptional merit and making the awards numerous enough to attract national attention and substantial enough for long enough to keep Master Teachers in the classroom.

"It is our view that the proposed program would help pave the way for reconsideration of merit-based personnel systems for teachers, which we believe would foster improvements in quality. Despite many surveys of public servants and professionals that have disclosed a strong preference for merit pay increases and promotions, school boards and legislators have almost always yielded to union demands for equal pay. Collective bargaining has served teachers and the public by improving working conditions and compensation, and we do not want to see it abandoned. But both the public and teachers would be even better served if the opposing sides in the bargaining process—the unions and local school boards—realized that merit-based systems and collective bargaining are not incompatible. . . . (p. 10)

The Primacy of English

"Our political democracy rests on the conviction that each citizen should have the capacity to participate fully in our political life; to read newspapers, magazines, and books; to bring a critical intelligence to television and radio; to be capable of resisting emotional manipulation and of setting events within their historical perspective; to express ideas and opinions about public affairs; and to vote thoughtfully—all activities that call for literacy in English. Accordingly, **the Task Force recommends that the federal government clearly state that the most important objective of elementary and secondary education in the United States is the development of literacy in the English language.**

"A significant number of young Americans come from homes where English is not the first language, and many now live in neighborhoods in an increasing number of states in which languages other than English are spoken. Although this nation has become more aware of the value of ethnic identities than it was during previous influxes of non-English-speaking immigrants, anyone living in the United States who is unable to speak English cannot fully participate in our society, its culture, its politics. This is not because of prejudice but because most Americans speak, write, and think in English. English is, after all, our national language. . . .

". . . It is not the role of the Task Force nor is it the responsibility of the federal government to instruct our schools and teachers in which pedagogy is most appropriate. The federal role, we believe, is to guarantee that all children have equal educational opportunity. Therefore, **the Task Force recommends that federal funds now going to bilingual programs be used to teach non-English-speaking children how to speak, read, and write English**. . . . (p. 11–12)

"This Task Force wants every American public school student to have the opportunity to acquire proficiency in a second language. . . . We think that a comprehensive approach to the study of languages, in which fluency in English is primary but adequate training in a second language is also made available, is absolutely essential if the United States is to be a leader among nations in the next century. . . . (pp. 12–13)

Science and Mathematics

"At the turn of the twentieth century, there was no real need for widespread scientific literacy. Today, training in mathematics and science is critical to our economy. Our citizens must be educated in science if they are to participate intelligently in political decisions about such controversial issues as radiation, pollution, and nuclear energy. **The Task Force recommends that the federal government emphasize programs to develop basic scientific literacy among all citizens and to provide advanced training in science and mathematics for secondary school students.**

"... Federal loans might be made available to prospective teachers who exhibit exceptional skills and who are pursuing degree programs in areas of existing or anticipated shortages. Those who complete their educational programs might be forgiven up to 10 percent of the funds lent to them for every year of classroom teaching—for a maximum of five years. (p. 14)

Better Education For All

"Perhaps the most persuasive reason for federal support of categorical programs is that, even under favorable political conditions, few local school systems have the will to concentrate their resources on the minority of students with special needs. Moreover, recent political and economic conditions have been anything but favorable for local governments. The cost of educating children with special needs has forced many school districts to resort to imposing taxes on productive members of the community without providing immediate benefits in return. Business firms along with residents in higher income brackets may choose to leave communities where the tax burden for educating the children of poor, needy residents is relatively heavy. Accordingly **the Task Force supports continuing federal efforts to provide special educational programs for the poor—and for the handicapped.**

"We applaud the steps taken by Congress to simplify regulatory restrictions and to reduce the overlap among many programs. In enacting legislation acknowledging the responsibility of the federal government for groups with special needs, **the Task Force believes that the guiding principle should be that categorical programs required by the federal government should be paid for from the federal treasury.**... (p. 15)

The Task Force also recommends that 'impact' aid, originally aimed at helping cushion the burden imposed on local school facilities by the children of military personnel, be reformulated to focus on school districts that are overburdened by substantial numbers of immigrant children....

"A related problem is the plight of localities in economic distress—mainly in the nation's central cities but also in impoverished rural areas, where there is an undue concentration of low-income groups, where high unemployment persists, and where there is a clear and urgent need for better education of the young. **The Task Force ... urges that federal attention and assistance go to depressed localities that have concentrations of immigrant and/or impoverished groups as well as those that are already making strong efforts to improve their education performance.**... (p. 16)

Educational Research

"Research on questions of educational quality can have symbolic as well as substantive value. For example, the study of the effects of school segregation undertaken by James Coleman for the Office of Education in 1965 focused public attention on the perniciousness of racism. Subsequent studies stimulated and informed public debate over such critical questions as the effects of school desegregation on 'white flight,' the results of compensatory education programs, and the relative merits of public and private schools....

"The Task Force recommends federal support for a number of specific activities:

- The collection of factual information about various aspects of the education system itself....
- The collection of information about the educational performance of students, teachers, and schools across the nation....
- Evaluation of federally sponsored education programs....
- Fundamental research into the learning process...." (pp. 17-18)

Provision of Choice

"Many proposals have been made in recent years to give parents more of a voice in choosing where their children are educated. Among them are tax credit plans and tuition vouchers. The Task Force does not endorse such proposals or recommend

a major redefinition of the relationship between public and nonpublic schools. We believe that the provision of free public education must continue to be a public responsibility of high priority, while support of nonpublic education should remain a private obligation. Yet we recognize that some children have not been able to learn in the present setting of public education. We cannot ignore, for example, students who repeatedly fail city or state competency examinations or fail in other ways to attain their academic capacity. Rather than having students either held back time and time again or promoted year after year to new levels of remediation, **the Task Force recommends the establishment of special federal fellowships for them, which would be awarded to school districts to encourage the creation of small, individualized programs, staffed by certified teachers and run as small-scale academies.** Eligibility for these fellowships, available to no more than 5 percent of public school enrollment, should be jointly determined by local, state, and federal school officials. Such an experiment, designed to benefit those who have been unable to learn in public schools, might provide the intensive and encouraging environment that these students need, and would free up the substantial resources now being spent on remediation with so little to show for it. (p. 20)

Leadership in Education

"While the federal role in promoting equality of opportunity and educational quality in the nation's schools is significant, elementary and secondary education in the United States must primarily remain a responsibility of state and local governments. . . .

"But even though state and local governments should continue to bear the major responsibility for the provision of educational services, it is increasingly important that the federal government emphasize the pressing need for a high-quality system of education open to all Americans, regardless of race or economic position. Toward this end, the Task Force has put forward a coordinated policy of overall federal support for American schools that simultaneously asserts the national interest in quality schools and in equal access to education, with assistance for those with special needs. . . .

"The Task Force is aware that some of its proposals are costly. But we should be able to afford the price of a commitment to educational excellence. This nation's young people are our most precious and potentially our most productive asset, provided that we invest wisely in educating them. In our view, support for our program by Congress and the White House will demonstrate the value that they attach to better schooling for all.

"Our proposed new approach for federal education policy will, we believe, stimulate a national reawakening of interest in educational excellence. But carrying out this policy requires our nation's political leaders to take an active part in supporting needed programs. It is no longer a cause that requires political courage. All across the country parents are demanding more of the schools, and in many cases the schools are already responding. We think the time is past due to offer a better education to all Americans. What it takes now is the political will to bring it about." (pp. 21–22)

The Task Force Members include representatives of higher education, state departments of education, local school districts. They are:

Robert Wood, (Chairman) Brewster C. Denny, Chester E. Finn, Jr., Patricia Albjerg Graham, Charles V. Hamilton, Carlos R. Hortas, Diane Ravitch, Wilson Riles, Donald M. Stewart, Robert E. Wentz, Rosalyn Yalow, and Paul E. Peterson.

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A Nation At Risk: The Imperative for Educational Reform

A Report to the Nation and the Secretary of Education by The National Commission on Excellence in Education

The National Commission on Excellence in Education was created by Secretary of Education T.H. Bell in August 1981. The 18-member commission chaired by David P. Gardner was directed "to examine the quality of education in the United States." The Commission responded in April 1983 with a report that "contains practical recommendations for educational improvement."

The Commissioner was directed to study, assess, and compare various trends and facts about our Nation's schools. In particular the commission was "directed to pay particular attention to teenage youth." and did so "largely by focusing on high schools. Selective attention was given to the formative years spent in elementary schools, to higher education, and to vocational and technical programs." (p. 2)

Sources of information were commissioned papers, public oral and written comment, existing analyses of problems in education, and descriptions of notable programs and promising approaches in education. The Commission report, **A Nation At Risk,** *includes twelve major sections. Brief summaries and excerpts from those sections appear below. Several appendices accompany the report; they include: the complete Charter of the National Commission of Excellence in Education, a list of public events and persons associated with the Commission's work, and a list of commissioned papers.*

The Risk:

The Commission stresses that the nation stands to lose its prominence as a world leader in industry and commerce. In fact, they report, we risk the long-standing promise that "means that all children by virtue of their own efforts, competently guided, can hope to attain the mature and informed judgment needed to secure gainful employment and to manage their own lives, thereby serving not only their own interests but also the progress of society itself." (p. 8)

Indicators of the Risk:

The commission presents example statistical information to document the risk. Several examples are included below.

- "International comparisons of student achievement completed a decade ago, reveal that on 19 academic tests American students were never first or second and, in comparison with other industrialized nations, were last seven times.
- Some 23 million American adults are functionally illiterate by the simplest tests of everyday reading, writing, and comprehension.
- About 13 percent of all 17-year-olds in the United States can be considered functionally illiterate. Functional illiteracy among minority youth may run as high as 40 percent.
- Average achievement of high school students on most standardized tests is now lower than 26 years ago when Sputnik was launched.
- Over half the population of gifted students do not match their tested ability with comparable achievement in school.
- The College Board's Scholastic Aptitude Tests (SAT) demonstrate a virtually unbroken decline from 1963 to 1980. Average verbal scores fell over 50 points and average mathematics scores dropped nearly 40 points." (p. 8)

Hope and Frustration:

The report presents the frustrations of various population segments with education at all levels. The hope, as the Commission states, is "the significant movement by political and educational leaders to search for solutions. . . ." (p. 12)

Excellence in Education:

The Commission defines excellence in our society and learning environments. They further restate our nation's commitment to excellence and equity. "We do not believe that a public commitment to excellence and educational reform must be made at the expense of a strong public commitment to the equitable treatment of our diverse population. The twin goals of equity and high-quality schooling have profound and practical meaning for our economy and society, and we cannot permit one to yield to the other either in principle or in practice. . . ." (p. 13)

The Learning Society:

"In a world of ever-accelerating competition and change in the conditions of the workplace, of ever-greater danger, and of ever-larger opportunities for those prepared to meet them, educational reform should focus on the goal of creating a Learning Society. At the heart of such a society is the commitment to a set of values and to a system of education that affords all members the opportunity to stretch their minds to full capacity, from early childhood through adulthood, learning more as the world itself changes. . . ." (p. 13)

The Tools at Hand:

The Commission recognizes the "essential raw materials" available in our society. They include dedication, commitment, understanding, ingenuity, and public and private resources. (p. 15)

The Public's Commitment:

Reinforcing that the Commission report is to the public, they stress that "of all the tools at hand, the public's support for education is the most powerful." (p. 16)

Findings:

Several pages of the report are devoted to findings regarding content, expectations, time and teaching.

Findings Regarding Content: "By content we mean the very 'stuff' of education, the curriculum. Because of our concern about the curriculum, the Commission examined patterns of courses high school students took in 1964–69 compared with course patterns in 1976–81. On the basis of these analyses we conclude:

- Secondary school curricula have been homogenized, diluted, and diffused to the point that they no longer have a central purpose . . . Students have migrated from vocational and college preparatory programs to 'general track' courses in large numbers. The proportion of students taking a general program of study has increased from 12 percent in 1964 to 42 percent in 1979.
- This curricular smorgasbord, combined with extensive student choice, explains [why a low percentage of high school graduates complete college preparatory courses.] . . .
- Twenty-five percent of the credits earned by

general track high school students are in physical and health education, work experience outside the school, remedial English and mathematics, and personal service and development courses, such as training for adulthood and marriage. (pp. 18–19)

Findings Regarding Expectations "We define expectations in terms of the level of knowledge, abilities, and skills school and college graduates should possess. They also refer to the time, hard work, behavior, self-discipline, and motivation that are essential for high student achievement. . . ." (p. 19)

The indicators of these expectations include grades, graduation requirements, examination and test scores, college admission requirements, and subject matter difficulty. Upon analysis, the commission sites several deficiencies. They include:

- "The amount of homework for high school seniors has decreased . . . and grades have risen as average student achievement has been declining.
- In many other industrialized nations, courses in mathematics (other than arithmatic or general mathematics), biology, chemistry, physics, and geography start in grade 6 and are required of **all** students. The time spent on these subjects, based on class hours, is about three times that spent by even the most science-oriented U.S. students, i.e., those who select 4 years of science and mathematics in secondary school.
- A 1980 State-by-State survey of high school diploma requirements reveals that only eight States require high schools to offer foreign language instruction, but none requires students to take the courses. Thirty-five States require only 1 year of mathematics, and 36 require only year of science for a diploma. . . .
- 'Minimum competency' examinations (now required in 37 States) fall short of what is needed, as the 'minimum' tends to become the 'maximum', thus lowering educational standards for all.
- One-fifth of all 4-year public colleges in the United States must accept every high school graduate within the State regardless of program followed or grades . . .
- Expenditures for textbooks and other instructional materials have declined by 50 percent over the past 17 years. . . . (pp. 19–21)

Findings Regarding Time: "Evidence presented to the Commission demonstrates three disturbing facts about the use that American schools and students make of time: (1) compared to other nations, American students spend much less time on school work; (2) time spent in the classroom and on homework is often used ineffectively; and (3) schools are not doing enough to help students develop either the study skills required to use time well or the willingness to spend more time on school work. . . .

Findings Regarding Teaching: "The Commission found that not enough of the academically able students are being attracted to teaching; that teacher preparation programs need substantial improvement; that the professional working life of teachers is on the whole unacceptable; and that a serious shortage of teachers exists in key fields.

- "Too many teachers are being drawn from the bottom quarter of graduating high school and college students.
- The teacher preparation curriculum is weighed heavily with courses in 'educational methods' at the expense of courses in subjects to be taught. A survey of 1,350 institutions training teachers indicated that 41 percent of the time of elementary school teacher candidates is spent in education courses, which reduces the amount of time available for subject matter courses.
- The average salary after 12 years of teaching is only $17,000 per year, and many teachers are required to supplement their income with part-time and summer employment. In addition, individual teachers have little influence in such critical professional decisions as, for example, textbook selection. . . .
- Half of the newly employed mathematics, science, and English teachers are not qualified to teach these subjects; fewer than one-third of U.S. high schools offer physics taught by qualified teachers." (pp. 22–23)

Recommendations:

The Commission advances five recommendations regarding content, standardization and expectations, time, teaching, and leadership and fiscal support. Implementing recommendations accompany four of the five major recommendations.

Recommendation A: Content: "We recommend **that State and local high school graduation requirements be strengthened and that,** at a minimum, **all students seeking a diploma be required to lay the foundations in the Five New Basics by taking the following curriculum during their 4 years of high school: (a) 4 years of English; (b) 3 years of mathematics; (c) 3 years of science; (d) 3 years of social studies; and (e) one-half year of computer science. For the college-bound, 2 years of foreign language in high school are strongly recommended in addition to those taken earlier. . . .**

1. The teaching of **English** in high school should equip graduates to: (a) comprehend, interpret, evaluate, and use what they read; (b) write well-organized, effective papers; (c) listen effectively and discuss ideas intelligently; and (d) know our literary heritage and how it enhances imagination and ethical understanding, and how it relates to the customs, ideas, and values of today's life and culture.

2. The teaching of **mathematics** in high school should equip graduates to: (a) understand geometric and algebraic concepts; (b) understand elementary probability and statistics; (c) apply mathematics in everyday situations; and (d) estimate, approximate, measure, and test the accuracy of their calculations. In addition to the traditional sequence of studies available for college-bound students, new, equally demanding mathematics curricula need to be developed for those who do not plan to continue their formal education immediately.

3. The teaching of **science** in high school should provide graduates with an introduction to: (a) the concepts, laws, and processes of the physical and biological sciences; (b) the methods of scientific inquiry and reasoning; (c) the application of scientific knowledge to everyday life; and (d) the social and environmental implications of scientific and technological development. Science courses must be revised and updated for both the college-bound and those not intending to go to college. An example of such work is the American Chemical Society's 'Chemistry in the Community' program.

4. The teaching of **social studies** in high school should be designed to: (a) enable students to fix their places and possibilities within the larger social and cultural structure; (b) understand the broad sweep of both ancient and contemporary ideas that have shaped our world; and (c) understand the fundamentals of how our economic system works and how our political system functions; and (d) grasp the difference between free and repressive societies. An understanding of each of these areas is requisite to the informed and committed exercise of citizenship in our free society.

5. The teaching of **computer science** in high school should equip graduates to: (a) understand the computer as an information, computation, and communication device; (b) use the computer in the study of the other Basics and for personal and work-related purposes; and (c) understand the world of computers, electronics, and related technologies.

In addition to the New Basics, other important curriculum matters must be addressed.

6. Achieving proficency in a **foreign language** ordinarily requires from 4 to 6 years of study and should, therefore, be started in the elementary grades. We believe it is desirable that students achieve such proficiency because study of a foreign language introduces students to non-English-speaking cultures, heightens awareness and comprehension of one's native tongue, and serves the Nation's needs in commerce, diplomacy, defense, and education.

7. The high school curriculum should also provide students with programs requiring rigorous effort in subjects that advance students' personal, educational, and occupational goals, such as the fine and performing arts and vocational education. These areas complement the New Basics, and they should demand the same level of performance as the Basics.

8. The curriculum in the crucial eight grades leading to the high school years should be specifically designed to provide a sound base for study in those and later years in such areas as English language development and writing, computational and problem solving skills, science, social studies, foreign language, and the arts. These years should foster an enthusiasm for learning and the development of the individual's gifts and talents.

9. We encourage the continuation of efforts by groups such as the American Chemical Society, the American Association for the Advancement of Science, the Modern Language Association, and the National Councils of Teachers of English and Teachers of Mathematics, to revise, update, improve, and make available new and more diverse curricular materials. We applaud the

consortia of educators and scientific, industrial, and scholarly societies that cooperate to improve the school curriculum. (pp. 24–27)

Recommendation B: Standards and Expectations: "We recommend **that schools, colleges, and universities adopt more rigorous and measurable standards, and higher expectations, for academic performance and student conduct, and that 4-year colleges and universities raise their requirements for admission. This will help students do their best educationally with challenging materials in an environment that supports learning and authentic accomplishment.**

1. Grades should be indicators of academic achievement so they can be relied on as evidence of a student's readiness for further study.

2. Four-year colleges and universities should raise their admissions requirements and advise all potential applicants of the standards for admission in terms of specific courses required, performance in these areas, and levels of achievement on standardized achievement tests in each of the five Basics and, where applicable, foreign languages.

3. Standardized tests of achievement (not to be confused with aptitude tests) should be administered at major transition points from one level of schooling to another and particularly from high school to college or work. The purposes of these tests would be to: (a) certify the student's credentials; (b) identify the need for remedial intervention; and (c) identify the opportunity for advanced or accelerated work. The test should be administered as part of a nationwide (but not Federal) system of State and local standardized tests. This system should include other diagnostic procedures that assist teachers and students to evaluate student progress.

4. Textbooks and other tools of learning and teaching should be upgraded and updated to assure more rigorous content. We call upon university scientists, scholars, and members of professional societies, in collaboration with master teachers, to help in this task, as they did in the post-Sputnik era. They should assist willing publishers in developing the products or publish their own alternatives where there are persistent inadequacies.

5. In considering textbooks for adoption, States and school districts should: (a) evaluate texts and other materials on their ability to present rigorous and challenging material clearly; and (b) require publishers to furnish evaluation data on the material's effectiveness.

6. Because no textbook in any subject can be geared to the needs of all students, funds should be made available to support text development in 'thin-market' areas, such as those for disadvantaged students, the learning disabled, and the gifted and talented.

7. To assure quality, all publishers should furnish evidence of the quality and appropriateness of textbooks, based on results from field trials and credible evaluations. In view of the enormous numbers and varieties of texts available, more widespread consumer information services for purchasers are badly needed.

8. New instructional material should reflect the most current applications of technology in appropriate curriculum areas, the best scholarship in each discipline, and research in learning and teaching. (pp. 27–29)

Recommendation C: Time: "We recommend **that significantly more time be devoted to learning the New Basics. This will require more effective use of the existing school day, a longer school day, or a lengthened school year.**

1. Students in high schools should be assigned far more homework than is now the case.

2. Instruction in effective study and work skills, which are essential if school and independent time is to be used efficiently, should be introduced in the early grades and continued throughout the student's schooling.

3. School districts and State legislatures should strongly consider 7-hour school days, as well as a 200- to 220-day school year.

4. The time available for learning should be expanded through better classroom management and organization of the school day. If necessary, additional time should be found to meet the special needs of slow learners, the gifted, and others, who need more instructional diversity than can be accommodated during a conventional school day or school year.

5. The burden on teachers for maintaining discipline should be reduced through the development of firm and fair codes of student conduct that are enforced consistently, and by considering alternative classrooms, programs, and schools to meet the needs of continually disruptive students.

6. Attendance policies with clear incentives and sanctions should be used to reduce the amount of time lost through student absenteeism and tardiness.

7. Administrative burdens on the teacher and related intrusions into the school day should be reduced to add time for teaching and learning.

8. Placement and grouping of students, as well as promotion and graduation policies, should be guided by the academic progress of students and their instructional needs, rather than by rigid adherence to age. (pp. 29–30)

Recommendation D: Teaching: "This recommendation **consists of seven parts. Each is intended to improve the preparation of teachers and to make teaching a more rewarding and respected profession. Each recommendation stands on its own and should not be considered solely as an implementing recommendation.**

1. Persons preparing to teach should be required to meet high educational standards, to demonstrate an aptitude for teaching, and to demonstrate competence in an academic discipline. Colleges and universities offering teacher preparation programs should be judged by how well their graduates meet these criteria.

2. Salaries for the teaching profession should be increased and should be professionally competitive, market-sensitive, and performance-based. Salary, promotion, tenure, and retention decisions should be tied to an effective evaluation system that includes peer review so that superior teachers can be rewarded, average ones encouraged, and poor ones either improved or terminated.

3. School boards should adopt an 11-month contract for teachers. This would ensure time for curriculum and professional development, programs for students with special needs, and a more adequate level of teacher compensation.

4. School boards, administrators, and teachers should cooperate to develop career ladders for teachers that distinguish among the beginning instructor, the experienced teacher, and the master teacher.

5. Substantial nonschool personnel resources should be employed to help solve the immediate problem of the shortage of mathematics and science teachers. Qualified individuals including recent graduates with mathematics and science degrees, graduate students, and industrial and retired scientists could, with appropriate preparation, immediately begin teaching in these fields. A number of our leading science centers have the capacity to begin educating and retraining teachers immediately. Other areas of critical teacher need, such as English, must also be addressed.

6. Incentives, such as grants and loans, should be made available to attract outstanding students to the teaching profession, particularly in those areas of critical shortage.

7. Master teachers should be involved in designing teacher preparation programs and in supervising teachers during their probationary years. (pp. 30–31)

Recommendation E: Leadership and Fiscal Support: "We recommend **that citizens across the Nation hold educators and elected officials responsible for providing the leadership necessary to achieve these reforms, and that citizens provide the fiscal support and stability required to bring about the reforms we propose.**

1. Principals and superintendents must play a crucial leadership role in developing school and community support for the reforms we propose, and school boards must provide them with the professional development and other support required to carry out their leadership role effectively. . . .

2. State and local officials, including school board members, governors, and legislators, have **the primary responsibility** for financing and governing the schools, and should incorporate the reforms we propose in their educational policies and fiscal planning.

3. The Federal Government, in cooperation with States and localities, should help meet the needs of key groups of students such as the gifted and talented, the socioeconomically disadvantaged, minority and language minority students, and handicapped. . . .

4. In addition, we believe the Federal Government's role includes several functions of national consequence that States and localities alone are unlikely to be able to meet: protecting constitutional and civil rights for students and school personnel; collecting data, statistics, and information about education generally; supporting curriculum improvement and research on teaching, learning, and the management of schools; supporting teacher training in areas of critical

shortage or key national needs; and providing student financial assistance and research and graduate training. We believe the assistance of the Federal Government should be provided with a minimum of administrative burden and intrusiveness.

5. The Federal Government has **the primary responsibility** to identify the national interest in education. It should also help fund and support efforts to protect and promote that interest. It must provide the national leadership to ensure that the Nation's public and private resources are marshaled to address the issues discussed in this report.

6. This Commission calls upon educators, parents, and public officials at all levels to assist in bringing about the educational reform proposed in this report. We also call upon citizens to provide the financial support necessary to accomplish these purposes. Excellence costs. But in the long run mediocrity costs far more." (pp. 32-33)

America Can Do It:

The Commission reaffirms the belief that the past indicates we can rise to the challenge and improve our schools for the future.

A Word to Parents and Students:

Parents have the right to demand quality education for their children; children should strive to attain a quality education fulfilling their maximum capabilities.

A Final Word:

The Commission asks all to secure Nation's future by demonstrating "our willingness to take up the challenge, and our resolve to see it through. . . ." (p. 36)

Members of the National Commission on Excellence in Education include representatives of higher education, state level administration, local school districts, business and professional associations. They are:

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The Paideia Proposal: An Educational Manifesto*

Mortimer J. Adler
On behalf of the members of the Paideia Group

The Paideia Proposal, *released in 1982, is addressed to parents, teachers, school boards, college educators, elected public officials, employers, minority groups, military leaders and all American citizens. "Such deep and legitimate concerns are addressed by our proposal for the reform of public schooling in America. The reform we seek is designed to improve the opportunities of our youth, the prospects of our economy, and the viability of our democratic institutions. It must be achieved at the community level without resorting to a monolithic, national educational system. It must be in Lincoln's words, of the people, by the people, and for the people." (p. xii)*

The Schooling of a People

"The two—universal suffrage and universal schooling—are inextricably bound together. The one without the other is a perilous delusion. Suffrage without schooling produces mobocracy, not democracy—not rule of law, not constitutional government by the people as well as for them. . . . We are all sufferers from our continued failure to fulfill the educational obligations of a democracy. We are all the victims of a school system that has only gone halfway along the road to realize the promise of democracy. . . . (pp. 3-4)

"We should have a one-track system of schooling, not a system with two or more tracks, only one of which goes straight ahead while the others shunt the young off onto sidetracks not headed toward the goals our society opens to all. The innermost meaning of social equality is: **substantially the same quality of life for all.** That calls for: **the same quality of schooling for all.** . . . (pp. 5-6)

The Essentials of Basic Schooling

"At the very heart of a multitrack system of public schooling lies an abominable discrimination. The system aims at different goals for different groups of children. One goal, higher than the others, is harder to accomplish. The other goals are lower—and perhaps easier, but, ironically, they are all too frequently not attained. The one-track system of public schooling that The **Paideia Proposal** advocates has the same objectives for all without exception. . . . (p. 15)

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"To achieve the desired quality of democratic education, a one-track system of public schooling for twelve years must aim directly at three main objectives and make every effort to achieve them to a satisfactory degree. . . ." (p. 16) These objectives are:

- "personal growth or self-improvement—mental, moral, and spiritual. Every child should be able to look forward not only to growing up but also to continued growth in all human dimensions throughout life. . . .
- the individual's role as an enfranchised citizen of this republic. Citizens are the principal and permanent rulers of our society. Those elected to public office for a term of years are instrumental and transient rulers—in the services of the citizenry and responsible to the electorate. . . .
- the adult's need to earn a living in one or another occupation. The twelve years of basic schooling must prepare them for this task, **not** by training them for one or another particular job in our industrial economy, but by giving them the basic skills that are common to all work in a society such as ours. (pp. 16-17)

"To achieve these three goals, basic schooling must have for all a quality that can be best defined, **positively,** by saying that it must be general and liberal; and **negatively,** by saying that it must be nonspecialized and nonvocational. . . . As compared with narrow, specialized training for particular jobs, general schooling is of the greatest practical value. It is good not only because it is calculated to achieve two of the three main objectives at which basic schooling should aim—preparation for citizenship and for personal development and continued growth. It is also good practically because it will provide preparation for earning a living. . . . (pp. 18-19)

"To give the same quality of schooling to all requires a program of study that is both liberal and general, and that is, in several, crucial, overarching respects, one and the same for every child. All sidetracks, specialized courses, or elective choices must be eliminated. Allowing them will always lead a certain number of students to voluntarily downgrade their own education. Elective choices are appropriate only in a curriculum that is intended for different avenues of specialization or different forms of preparation for the professions or technical careers. Electives and specialization are entirely proper at the level of advanced schooling—in our colleges, universities, and technical schools. They are wholly inappropriate at the level of basic schooling. . . . (p. 21)

". . . The required course of study also includes a group of auxiliary subjects, of which one is physical education and care of the body. This runs through all twelve years. Of the other two auxiliary subjects, instruction in a variety of manual arts occupies a number of years, but not all twelve; and the third consists of an introduction to the world of work and its range of occupations and careers. It is given in the last two of the twelve years. . . . (p. 22)

"For a number of years, fewer than all twelve, boys and girls alike should participate in a wide variety of manual activities, including typing, cooking, sewing, wood and metalworking, crafts using other materials, automobile driving and repair, maintenance of electrical and other household equipment, and so on. In the later years, they should receive instruction to prepare them for choosing and finding a career. . . . (p. 33)

"Despite their manifold individual differences, the children are all the same in their human nature. They are human beings and their human equality consists in the fact that no child is more or less human than another. . . . In our democratic society, moreover, all children can look forward to a future that is the same in a number of essential respects. All will grow up to become full-fledged citizens with suffrage and with the political liberty it confers. All can demand to have their human and civil rights protected by the Constitution and by the laws that conform to it. . . . (pp. 42-43)

Teaching and Learning

"The heart of the matter is the quality of the learning that goes on during the hours spent in class and during the time spent doing assigned homework. The course of study is nothing but a series of channels or conduits. The child goes in at one end and comes out at the other. The difference between what goes in and what comes out depends upon the quality of learning and of teaching that takes place throughout the journey.

"The quality of learning, in turn, depends very largely on the quality of the teaching—teaching that guides and inspires learning in the classroom, and that directs and motivates learning to be done in homework. Largely but not entirely! Effective learning often occurs in spite of defective teaching. Teaching at its best is only an aid to

learning, but that aid is most needed by those who are least adept at learning.

"All genuine learning is active, not passive. It involves the use of the mind, not just the memory. It is a process of discovery, in which the student is the main agent, not the teacher. . . . (pp. 49-50)

"How should teachers—functioning properly as aids to learning—work to guide or assist the activity of the pupil's mind, the activity that is the principal cause of learning? The answer differs according to the three ways in which learning improves the mind: (1) by the acquisition of information or organized knowledge; (2) by the development of intellectual skills; (3) by the enlargement of the understanding. In each of these three modes of learning, there is a different kind of help to be given by the teacher. . . . (p. 51)

"Finally, a word must be said about deportment. Laxity in this respect can be completely destructive of learning and completely frustrating to the efforts of the best teachers. Students must be required to behave in class and in school in a manner that is conducive to learning. . . . (p. 55)

The Preparation of Teachers

"There are and always will be a relatively small number of highly gifted, strongly motivated teachers who manage, in spite of all adverse conditions, to perform creditably, even magnificently. But that number is far from enough to achieve the desired quality of teaching for all. At present, many factors work against having enough good teachers to staff our schools. . . . Everything that has been said so far cites negative and external factors—bad working conditions, compensation that is too low, inferior social status, distracting demands. But there is more. Were all these negative factors eliminated or rectified, positive factors and conditions for training and holding a sufficiently large number of good teachers must be provided. . . . (pp. 57-58)

"[Teachers] should themselves be at least as well-schooled as the graduates of the schools in which they are expecting to teach. They should have completed the required course of study we have recommended. Many teachers now employed in our public schools have not themselves had basic schooling of this quality, or even of the quality now provided in our better schools. . . . The present teacher-training programs turn out persons who are not sufficiently equipped with the knowledge, the intellectual skills, or the developed understanding needed to guide and help the young in the course of study we have recommended. . . . (pp. 59-60)

The Principal

". . . The head of the school—its administrator—should not be solely or even primarily concerned with running the school efficiently or economically, or merely keeping the peace of the community. Keeping the peace, doing justice, balancing budgets, enforcing laws is the main business of the political community at any level; they are not the **main business** of the school community. Its main business is teaching and learning. The head of the school—its principal—should, therefore, administer all other affairs in ways that facilitate the **main business**. . . . (pp. 63-64)

Beyond Basic Schooling

"Our main concern is basic schooling. It is the only schooling that is compulsory for all and that should be the same for all. Our concern is double-edged. We have two fundamental goals in view. One is equipping all the children of this country to earn a good living for themselves. The other is enabling them to lead good human lives.

"The enjoyment of a high standard of living, however desirable, still leaves more to be desired. The external, physical, material conditions of a good human life, necessary as they are, remain by themselves insufficient. They must be put to such use by the individual that the quality of his or her life is enriched internally as well as externally. . . ." (p. 73)

"The thrust of our argument so far has been that basic schooling ought to prepare every child to earn a living and live a good life. But there is one more reason for exerting every effort to improve basic schooling. We must also do it to preserve our free institutions. . . . Human resources are the nation's greatest potential riches. To squander them is to impoverish our future." (pp. 77-79)

This initial work of the Paideia Group was supported by the John D. and Catherine T. MacArthur Foundation. The Paideia Proposal will be followed by a book of essays entitled **The Paideia Proposal: Pointers and Prospects.** This will provide guidelines for putting the program into effect.

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A Place Called School: Prospects for the Future*

John I. Goodlad

The Study of Schooling extended eight years, three of which were devoted to conceptualizing the Study, formulating and refining questions, preparing questionnaires and observation schedules, and getting ready to gather the data. The Study's assumption was that "significant educational improvement of schooling, not mere tinkering, requires that we focus on entire schools, not just teachers or principals or curricula or organization or school-community relations but all of these and more." (Preface) The text includes two appendices: a list of source materials including technical reports, and a personnel roster for the Study. Reference notes accompany the text.

". . . This is not a research report as such. It is a discussion of what appears to be the current state of schooling in our country, made real by the illustrative use of data carefully gathered from a small, diverse sample of schools. . . . (Preface)

". . . The selection of 13 communities in seven sections of the country produced a sample of 38 schools differing in several significant characteristics. The fact that the elementary schools selected sent most of their students to the secondary schools studied provided us with a continuum of 12 years of schooling in each community.

"We recognized from the beginning that gathering any significant amount of data in a sample representing all the different kinds of schools in the United States—a random sample—is impossible. Instead, we sought maximum diversity and representativeness in a sample of small size. . . .

". . . We sent more than 20 trained data collectors into each community, where they remained for almost a month, compiling a large body of data about each school. Just 38 schools produced data from many individuals—8,624 parents, 1,350 teachers, and 17,163 students. Detailed observations of classroom practices and interactions were conducted in 1,016 classrooms—the largest number ever systematically carried out in a single study. . . . The schools we studied differ in location, size, characteristics of the student population, family incomes, and other ways. Nonetheless, they shared many similarities, particularly in modes of teaching and learning. . . . (p. 18)

*Permission to excerpt granted by the publisher, McGraw Hill Book Company.

"One of the major messages of this report is that improvement is essentially a school-by-school process, enlightened by the degree to which those associated with each school and trying to improve it have the data required for building a useful agenda. Many of the kinds of data we gathered are precisely what local school personnel require if their efforts are to be the other than sporadic and aimless. . . . (p. 19)

Some Recurring Themes

". . . We chose pieces of the whole appearing to characterize schools commonly, even though each may manifest itself differently from school to school. We referred to these as commonplaces of schooling—teaching practices, content or subject matter, instructional materials, physical environment, activities, human resources, evaluation, time, organization, communications, decision making, leadership, expectations, issues and problems, and controls or restraints. They combined to constitute something close to the whole of a school. . . .

"We chose also to describe most commonplaces from the several major perspectives involved in our study—students', teachers', parents', observers', and to a somewhat lesser degree, principals'. . . . (p. 28)

". . . The themes thus help us see that schooling has a common set of characteristics and that school-to-school differences result from the sum total of how these characteristics manifest themselves in each school. . . .

- The first theme is **school functions** . . . from baby sitting to job preparation and intellectual development. . . .
- A second theme is the school's **relevance** in the lives of its students. . . . They go to school as part of growing up. . . .
- A third theme is **how teachers teach** . . .
- A fourth is the **circumstances surrounding teaching**. . . .
- . . . A fifth theme is the array of activities, materials, and tests constituting **the curriculum.**
- A sixth is **the distribution of resources for learning. . . .**
- A seventh theme, **equity**, expands on the issues of equity involved in theme six. . . .
- An eighth theme is what often is called **the hidden curriculum**—what I have chosen to call **the implicit curriculum**. . . . for example, emphasizing acquiring facts or solving problems. . . .
- A ninth theme is **satisfaction** as a criterion of school quality. . . . The composite satisfaction of principal, teachers, students, and parents constitutes a significant indication of a school's quality, including achievement. . . .
- A tenth theme is **the need for data.** The schools in our sample simply do not possess the information they need to set, with some confidence, an agenda for school improvement. . . . (pp. 29-31)

Improving the Schools We have [Recommendations]

- "The recommendations for states are intended to assure the clear articulation of a comprehensive set of goals for schools; the availability of alternative curricular designs and pedagogical procedures; continuing assessment of the condition of education in schools; and support for school improvement. They are intended, also, to impress upon state leaders the need to stimulate creative ways to organize and staff schools, develop teacher education programs, and eliminate the present 'flatness' in teaching opportunities and salary schedules. States must be held accountable for what they do and do not do in these as well as other areas of responsibility, just as state legislatures are prone to hold teachers and administrators accountable for students' learning. This implies continuing evaluation, at state expense, of the impact—good and bad—of legislative initiatives in the educational arena.
- The recommendations for school districts are intended to effect greater decentralization of authority and responsibility to the local school site. They are designed, also to stimulate long-range planning in each school, under the leadership of the principal and with assistance in self-assessment from the district office. The inherent principle is 'every tub on its own bottom,' each with a strong link to the superintendent and to the other tubs in the system. The unit of improvement is the individual school. The major decisions regarding it are made there, where they are easily scrutinized by the school's patrons. The district is effective to the degree that its schools exhibit good health.
- The recommendations for teacher education are intended to separate the preparation process from the customary ways of keeping school. This is a sharp departure from much conventional practice. One part of the future

teachers' orientation is an immersion in behavioral and humanistic studies relevant to schooling and teaching. Another is guided observation and practice only in key and demonstration schools working in collaboration with the teacher preparing institutions. The education of beginning teachers, development of experienced teachers, and school improvement go hand-in-hand.

- The recommendations for distributing time and teachers are intended to produce curricula of sufficient scope and balance to reflect the expectations of state goals. The curricular recommendations emphasize balance in the student's, not just the school's, program of studies. They provide for a common minimum in each domain of knowledge, some degrees of freedom for local option in each domain, some provision for either more advanced work or remediation in the domains of the curriculum common to all students, and assurance that all students, not just the most academically able, will have some opportunity for the development of special interests and talents.
- Recommendations for the elimination of ability grouping and tracking and for greater emphasis on methods of mastery learning seek greater equity in access to knowledge for all students. Similarly, the recommendations for improving instruction are intended to expand students' opportunities to learn.
- The recommendations for research and development centers focused on curriculum design, on the content of the major domains of the curriculum, and on teaching and evaluation hold out the possibility of getting new models to guide planning and teaching. The prospects here for long-term funding from the private sector enhance the possibilities for innovation and for transcending the uniformity of schooling.
- Among the recommendations most likely to lead us beyond conventional ways of conducting schooling are those for close articulation of our elementary, middle, and senior high schools, more rigorous selections and preparation of principals, alternative ways of staffing elementary schools, and the division of large secondary schools into smaller, semiautonomous units. These procedures address the flatness in opportunities and incentives for teachers and administrators. They invite innovations in the organization of schools, curricula, and collaborative teaching. Together, they challenge the conventions that characterize most schools and resist change. And they encourage longer, closer relationships among teachers and groups of students. Greater satisfaction on the part of both might well be the result. . . . (pp. 318-320)
- Regarding the lower end, I recommend that school begin at age 4. What is attempted over 12 years beginning at age 6 and ending at age 18 is now to be accomplished between the ages of 4 and 16. I have no hesitation in saying that the results will be as good or better than currently is the case. Expenditures will be less because public kindergarten will be included in the span of years. The extraordinary costs in developing curricula, in teacher frustration, in policing schools, and in monitoring absenteeism will be reduced. The costs to society in general will be less and the gains considerable. Children will be off to an earlier start, a condition which pays dividends in regard to their ultimate attainment and society's welfare. The costly prolongation of higher and professional education in the lives of young men and women will be reduced by two years. And we will have one of the greatest opportunities of all time to rethink what school should be for. . . . (pp. 325-326)

Beyond the Schools We Have:
[Four conditions which must be addressed.]

"The first [condition] is a youth culture powerfully preoccupied with itself and made up of individuals much less shaped by home, church, and school than once was the case. How well suited to the young people of today is a school that hardened into shape during a previous era? Some of our data suggests a poor fit. Other studies and statistics on absenteeism, truancy, and interpersonal tensions—sometimes leading to violence—raise serious questions about the appropriateness of schools, as conducted for many of the older students in attendance. But merely to remove the most troublesome may be to obfuscate the basic problems.

"A second condition, to which our system of schooling has responded sluggishly, is the stunningly swift advances of technology in virtually all aspects of life. The end is not in sight. Persons who just a few years ago were operating elevators, attending to parking lots, and selling newspapers on the street corners have been replaced by buttons to push and boxes which respond to the insertion of plastic cards. Persons not replaced use special languages to instruct the computers on which we have become depen-

dent. Television may be the closest thing we have to a common school. The schools, compared with other institutions, have responded very little to this technological revolution. But it is difficult to believe that schools can have a future apart from technology.

"Third, in regard to vocational education the school may be, in the late twentieth century, where the home was in the late nineteenth. It became impossible, about a hundred years ago, for families to provide their children with the skills required for gainful employment in the emerging workplace. Similarly, it simply is not feasible today for schools to prepare specifically for the vast array of jobs available and increasing. To prepare youths for jobs whose requirements are obvious and relatively simple is to produce workers who will quickly become obsolescent. The requirements of a large segment of the workplace are obscure. The best preparation for work is general education. The specifics required for jobs are best taught by employers. Clearly, the future calls for better understanding and engineering of the relationships between education and work and between schools and the workplace.

"Fourth, there will be no diminution in the need and our expectations for a highly educated society. Periodic disjunctures between the supply of and demand for highly educated workers raise the issue of creating an overeducated citizenry. But it becomes increasingly difficult to cope with the complexities of our society, let alone be successful in it, without the high degree of awareness, insight, and problem-solving ability that comes from education. It is difficult to envision a society of overeducated parents, voters, and workers. . . ." (pp. 321-322)

Goodlad concludes his book by stating: ". . . Whatever our individual experiences with a place called school, to think seriously about education conjures up intriguing possibilities both for schooling and a way of life as yet scarcely tried. And, indeed, education is as yet something more envisioned than practiced." (p. 361)

The Advisory Committee to the Study of Schooling includes:

Ralph W. Tyler, Chair, Gregory Anrig, Stephen K. Bailey, Lawrence, A. Cremin, Robert K. Merton, and Arthur Jefferson.

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Available at bookstores, or order from:
McGraw Hill Book Company
Customer Service
Princeton Road
Hightstown, NJ 08520

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A Study of High Schools*

Co-sponsored by
the National Association of Secondary School Principals
and the National Association of Independent Schools

The reports from the Study of High Schools, to be released in 1984, will focus on (1) what is known about adolescent learning and good high schools; (2) the nature of change in high schools since World War II; and (3) the complexities of life in high school today. The lines of inquiry will include historical essays and field studies and visits. The outcomes of the Study will include suggested ways and means of reform. From "High School Reform: The Need for Engineering," an article written for **Phi Delta Kappan** *by Theodore R. Sizer, chair of the study group, we are able to obtain a glimpse of its scope, findings, and recommendations.*

"Most of the central problems crippling U.S. high schools are obvious and well understood; it is the remedies that seem problematic. But there is no serious way to improve our high schools without revamping their structure. Politically painful though such a re-engineering may be, it is inescapable. . . ." (p. 679)

The Grip of Structure

Sizer emphasizes the grip that long standing structure has on our high schools. The "organizing framework [of the high school] dates from the late 19th century and persists today with remarkable consistency across all regions of the country and across public and private sectors. Most adolescents attend high schools with a thousand or more age-mates. They find there a structure that is highly fractionated. . . . The program revolves around subjects taught by specialists . . . and the students 'cover' a succession of topics each day, seemingly at random. . . .

"It is not that some schools do not seem more effective than others. They do appear to be so, but whatever special effectiveness is apparent emerges from the same framework. And that framework seriously limits our expectations.

*This synopsis was derived from an article and brochure written about the Study. (**Phi Delta Kappan**, June 1983, vol. 64, no. 10.) © 1983 Phi Delta Kappan, Inc. Permission to excerpt granted.

"High schools are complicated organisms. To be orderly, the pieces must work together smoothly. . . . Thus things remain the same because it is impossible to change very much without changing most of everything. The result is paralysis. . . . (p. 680)

High Schools' Problems

"A list of some of these problems [of high schools] makes familiar reading.

- The goals for high schools are numerous and seem to continue multiplying, with little regard for the severe limits imposed by a lack of school staff, equipment and time.
- Many adolescents complete high school unprepared for what follows in their lives; they are marginally literate, uninspired, possessed of only rudimentary skills, and imbued with a narrow view of the world.
- Productivity is low. Young people, who may spend well over 12,000 hours in school and who are maintained there at substantial expense, are nonetheless unprepared to take their places in society. In a narrower economic sense, schooling has become progressively less productive over the last decades. . . .
- Many students find little incentive in hard academic work. Although they want their diplomas, they earn them primarily by doggedly dutiful attendance rather than by an exhibition of mastery of the substance of study. . . .
- Students are rarely expected to educate themselves. . . .
- The labels of subjects are ambiguous and often misleading. In the same breath with which policy makers piously assert the need for 'four years of English for all students,' they admit that 'English' in practice is currently a ragbag of ends and means. . . .
- A premium is put on coverage at the expense of thoroughness. . . . The torrent of facts poured over students is overwhelming, and the only way teachers can keep up the flow is to lecture—to feed students knowledge rather than expect them to forage on their own.
- The daily activities, academic and otherwise, in which a typical high school student engages are numerous: five or six classes on widely differing topics taken in a random sequence are mixed with some nonacademic activity and lots of usually frenetic socializing. . . .
- The academic reward system revolves around time, with quicker being better. 'Ahead of grade level' is absolutely preferred to solid, ultimate mastery. . . .
- In spite of strenuous efforts on many sides to eliminate it, segregation of the schools by social class is profound. . . . The poor are tracked to be poor, the rich to be rich. Related racial and ethnic stereotyping is pervasive.
- Schools connect poorly with the outside world. Traditional vocational and technical education has been devastatingly challenged, but still it goes on largely unaffected by the evidence of its malfunctions. The connection between nonschool technologies, such as television and computers, and the schools is at best rudimentary. The fact that most high school students hold jobs during the school year is ignored or cursed but rarely used constructively.
- Inevitably, schools are places where values are learned. But, sadly, few schools have well-articulated and thoroughly argued approaches in this area. . . .
- Teachers know that time on task (up to a point) is important for all students and that personal attention to each student pays great dividends. However, most high school teachers deal with well over a hundred young people daily, in groups that gather for less than an hour. In such circumstances, only an exceptional instructor can come anywhere near individualizing instruction.
- The teaching profession has a very limited career line. A teacher has roughly the same responsibility at the end of a professional lifetime as on the first day of work. As much as anything else, this state of affairs drives many able and ambitious people from the classroom.
- Teachers' salaries and benefits are not competitive with those in fields that require comparable preparation—particularly at the top levels. . . .
- Even though policy makers universally agree on the need to strengthen the teaching profession, many of them support policies that both patronize teachers and undermine their autonomy—that essential element of self-esteem. The teacher's role is codified today, all the way down to minutes-per-year-per-subject. . . . Teachers are told that their own competence is to be measured by credit hours of college courses taken, even though there is little evidence that quality derives from credits earned. Thus the system insults the intelligence of teachers. Policies seem to be drafted to squeeze the incompetents out of the profession rather than to attract the able into it.
- Their rhetoric notwithstanding, public leaders are uninterested in the schools. Regulation and

coercion, which don't cost much, get great play today. . . ." (pp. 680-681)

Engineering

Fourteen recommendations are summarized by Sizer in his article.

1. "In most high schools, a shorter, simpler, better-defined list of goals is necessary; this will involve shelving the long-standing claims of certain subject areas. For example, driver education may have to give way to English. Athletic and chorus trips may no longer be allowed to preempt teaching time, which might mean curtailing interscholastic athletic and arts programs. Chemistry may have to be dropped as a separate subject in order that biology and physics can be taught well. . . .

2. Students entering high school unable to read, write, and cipher adequately will have to concentrate exclusively on these subjects. These are the foundations of secondary school work, and, until they are mastered, studying much else is wasteful. Teachers will need substantial time to work with these youngsters, as the students almost certainly will be demoralized and ready to fail.

3. Higher-order thinking skills—reasoning, imagining, analyzing, synthesizing—are the core of senior high school work, and they are learned through confrontation, through dialog. One isn't **told** how to think; one reasons and has that reasoning critiqued. Inescapably, this process requires different kinds of teaching formats and lower teaching loads than are now the rule.

4. Until mastery of subject matter determines whether or not a diploma is granted, students will see minimal incentives for achieving such mastery. There must be some kind of culminating examination or other exhibition of mastery to place the emphasis of schooling squarely on learning. . . .

5. A central goal of schooling is for students to be able to teach themselves and to wish to do so. (We forget most of the facts we learn in schools; what stays with us, if we're lucky, is the knowledge of how to gain knowledge.) The way one learns to teach oneself is to practice doing it and to have that practice critiqued. . . .

6. Sorting out what students require inescapably uncovers the inadequacy of traditional interpretations of the subjects of study. Absolutely fundamental skills of thinking and expression cut across the domains of existing departments. Thus they are often given short shrift. The fractionated curriculum that the high schools have inherited from the 1890s serves us poorly. . . .

7. The frenetic quality of many high schools needs to be eased, the pace slowed, and larger blocks of time made available for the kind of dialectical teaching that is a necessary part of helping adolescents learn to think clearly and constructively. This will mean that some things will have to go. . . .

8. Age-grading must cease, and students must be allowed to progress at their own rates. Adult attitudes about 'where a student should be' will also have to change; the assumption must always be that mastery is not only possible but expected. We will need to adapt instruction to students' differing learning styles. . . .

9. Lessening segregation and stereotyping by class, race, gender, and ethnicity requires not only unprejudiced attitudes on the parts of those of us who work in schools but also changes in the structure of schooling. Mastery of the basic core of high school work would be the goal for everybody—a common purpose even if addressed through widely differing means. Diversions from this through early tracking (e.g., decisions on vocational education made at the end of ninth grade) or through magnet programs (sometimes thinly disguised devices to perpetuate segregation) must be resisted. . . .

10. . . . If a high school diploma is awarded by a validation of a student's mastery, then **how** that learning is mastered is not very important. . . . Schools should seize upon the best of that learning and give incentives to students to use their out-of-school opportunities in ways that help them learn still more.

11. . . . Students will learn more if they are taught English and social studies by the same teacher than if they are taught by separate specialists. . . . However, launching a challenge against specialization in high schools will be difficult, especially in states where job descriptions are frozen into certificates and legislation.

12. Proper accommodation of individual student differences demands that teachers have control over their own and their students' schedules and programs. . . .

13. Good teachers value their autonomy. They know they need it to do a first-class job. If they are

denied autonomy, they do mediocre work—or leave teaching. If we want to attract and hold top professionals in teaching, we will have to give them appropriate autonomy. Despite rhetoric to the contrary, the trends today are working to weaken the teaching profession. Ever more regulation comes from the top. There is a sort of vicious circle at work: teachers are weak, and therefore they must be regulated; if teaching is heavily regulated, good people will avoid the profession; therefore, teachers are weak. . . .

14. Top professionals want a career that gradually develops, with more responsibility and compensation following experience and demonstrated excellence. This requires differentiated staffing within teaching and salaries that follow this differentiation. Such schemes require us to redefine the ways of deploying teachers in schools. . . ." (pp. 682-683)

This Study is sponsored by:

the National Association of Secondary School Principals and the Commission on Educational Issues of the National Association of Independent Schools. Planning for the Study was supported by the Commonwealth Fund and the Charles R. Culpeper Foundation. Funding for the implementation of the Study has been provided by grants from the Carnegie Corporation of New York, the Charles E. Culpeper Foundation, the Gates Foundation, the Edward John Noble Foundation, and the Esther and Joseph Klingenstein Fund.

Three final reports for A Study of High Schools will be published by Houghton Mifflin Company in the coming year.

- **Horace's Compromise: The Dilemma of the American High School** by Theodore R. Sizer (January, 1984)
- **American High Schools Since 1940** (tenatative title) by Robert L. Hampel (Spring, 1984)
- An as yet untitled comparative analysis of fifteen high schools by Arthur G. Powell, Eleanor Farrar and David K. Cohen (Fall, 1984)

For the brochure describing the Study, contact: A Study of High Schools, 18 Tremont Street, Boston, MA 02108.

Section III: Annotated Bibliography of Selected Other Education Reports and Projects

This section provides an annotated bibliography of other current education reports and projects that are available to policymakers. Each report or project is categorized as a general reference (i.e., The Status of Education and American Youth; Our American Schools) or as a topic-specific reference that relates to the critical areas as presented in Section I. Information on how to obtain the report accompanies the description of the report or project.

Reports or projects are included, based on the following criteria:

- it speaks to one or more major topics mentioned in the previous reports
- it contains significant data about the condition of American education and youth
- it already has been recognized and referenced in several national publications.

The Status of Education and American Youth

The American Federation of Teachers' Report on the Mathematics/Science Teacher Shortage, Curriculum Standards, Business Involvement, and Computer Activity*
Project Director: Eugenie Kemble

AFT conducted a spot survey of key report areas in the Fall of 1982. The group is planning a follow-up investigation of business involvement with schools. AFT also has produced an analysis, with recommendations, of the math and science education problem in general.

For information, contact:
American Federation of Teachers
11 Dupont Circle
Washington, DC 20036

*Description from **Education Week** "Databank," March 16 and July 27, 1983.

Business in the Schools Project*
The Committee for Economic Development
Director: Owen B. Butler, Chairman of the Proctor & Gamble Company, and Denis P. Doyle, Project Director.

The Committee for Economic Development is made up of 200 of the nation's leading business executives and university presidents. The purpose of the project is to assess what the American business community can do to help strengthen elementary and secondary education. The two-year effort will result in a major policy document with recommendations and proposals for all the actors in the education system.

For information, contact:
Sol Hurwitz
Committee for Economic Development
477 Madison Avenue, off 51st Street
NY, NY 10022

The Condition of Education, 1983 edition
National Center for Education Statistics

Published annually, this statistical report examines elementary/secondary education, higher education, vocational and adult education, and teacher preparation.

282 pages, $7.00; NCES #83-400
(#065-000-00183-7)
Order from:
Superintendent of Documents
US Government Printing Office
Washington, DC 20402

High School and Beyond: A National Longitudinal Study for the 1980's*
A Capsule Description of High School Students
National Center for Educational Statistics, 1981

This publication reports on a 10-year study of large samples of youths who were high school sophomores and seniors in 1980. In the base-year survey, random samples of approximately 36 sophomores and 36 seniors were selected from each of more than 1,000 secondary schools. More than 30,000 sophomores and 28,000 seniors participated. The primary focus of the study is on educational processes and outcomes. Detailed data also will be collected on college careers, work experience, military service, and a variety of personal and family characteristics. Several studies have already emerged using data from this study, including James S. Coleman's **High School Achievement: Public, Catholic, and Private Schools Compared.** Follow-up studies are in progress.

Order from:
Statistical Information Office
National Center for Education Statistics
1001 Presidential Building
400 Maryland Avenue, S.W.
Washington, D.C. 20202

Highly Able Students Who Did Not Go To College
Center for Educational Research and Evaluation
Graham J. Burkheimer and Jay Jaffe

The study survey initiated by and conducted for the National Center for Educational Statistics (NCES), began in spring 1972 with over 1,000 in-school group administrations of survey forms to a sample of approximately 18,000 seniors. In the several follow-up surveys, the sample included almost 5,000 additional students from sample schools that were unable to participate in the base-year survey. Results are being presented in a series of reports designed to highlight selected findings in educational, career, and occupational development. This report focuses on students who were in the top quarter of their graduating class in academic ability but who had not entered college four and one-half years after high school graduation. In particular, the report presents information about the potential reasons for nonattendance and the current activity states of these highly able students. For comparison purposes, results are also presented for those of other ability levels.

August 1981; 41 pages; $4.75; NCES 82-217
(#065-000-00128-4)
Order from:
Superintendent of Documents,
U.S. Government Printing Office
Washington, D.C. 20402

Human Capital: A High Yield Corporate Investment
Anthony P. Carnevale
American Society for Training and Development, © 1982.

The study, resulting in this publication, was conducted in an attempt to create a greater national understanding of the need to invest in human capital as a means of improving the overall performance of the American economy. The study is firmly grounded and presents easily articulated data of human resource growth and productivity.

13 pages; $10.00 + $1.50 shipping, prepaid
Order from:
ASTD Publishing Service
PO Box 4856, Hampden Station
Baltimore, MD 21211

National Assessment Findings and Educational Policy Questions
Rexford Brown
Education Commission of the States
December 1982

This special analysis across learning areas presents a "repackaging" of existing data to answer some common questions about educational achievement, to relate the findings to past and future educational policy decisions, and to raise questions for future research efforts. The findings are summarized with 63 statements about reading, literature, mathematics, writing, and science.

21 pages; $3.50 (#SY-CA-50)
Order from:
ECS Distribution Center
Suite 300, 1860 Lincoln St.
Denver, CO 80295

National Assessment of Educational Progress
1982 Annual Report

The National Assessment of Educational Progress publishes reports of project activities and findings including charts and pictures relevant to how young people perform in various learning areas. These areas include: art, career and occupational development, citizenship/social studies, literature, mathematics, music, reading/literature, science, social studies, special assessments, energy, health, literacy, speaking and listening, and consumer skills.

25 pages; free
Publications can be ordered from:
ECS Distribution Center
Suite 300, 1860 Lincoln St.
Denver, CO 80295
(1983 NAEP documents will be available from:
Education Testing Service,
Princeton, NJ 08540)

National Report on College-Bound Seniors, 1982
Admissions Testing Program of the College Board

This report summarizes the information about 1981-82 high school seniors who participated in the advanced placement testing program while in high school. Items summarized include ethnic background, test scores, college plans, high school rank and activities.

Copyright 1982 by College Entrance Examination Board.
20 pages, free
Order from:
College Board
P.O. Box 86
New York, NY 10101

Profile of American Youth
1980 Nationwide Administration of Armed Services Vocational Aptitude Battery
Office of the Assistant Secretary of Defense

The principal objectives of the research project were to assess the vocational aptitudes of a nationally representative sample of youth and to develop current national norms for the Department of Defense enlistment test, the Armed Services Vocational Aptitude Battery (ASVAB). The results of this study will also be useful in addressing the issue of the compatibility between complex and demanding military weapon systems and personnel capabilities.

March 1982; 90 pages
Order from:
Office of the Assistant Secretary of Defense
Washington, D.C. 20301

State Programs of School Improvement*
Education Commission of the States
Project Director: Van Dougherty

The project will update a 1982 ECS 50-state survey of school improvement activities sponsored by the states, including state-developed curricula or curricular guidelines, changes in accreditation standards, effective schools programs, local building programs, and new strategies of student testing.

For information, contact:
Education Commission of the States
Suite 300, 1860 Lincoln Street
Denver, CO 80295

The Study of Stanford and the Schools*
Project Directors: Donald Kennedy, president of Stanford University, and J. Myron Atkin, dean of Stanford's Graduate School of Education.

The study, scheduled for completion in 1985, is meant "to provide an illuminating, data-based overview of the state of American secondary schools; to make recommendations about educational policy and practice; and to identify how schools of education at research institutions can play a major role in improving American education." Six study groups have been formed to examine particular topics: curriculum, educational technology, personal responsibility and behavior, organization of the high school, and testing.

For information, contact:
Stanford University
Stanford, CA 94305

Our American Schools

Discipline, Order and Student Behavior in American High Schools*
National Center for Education Statistics

The Study addresses: (1) the distribution of misbehavior by student characteristics; (2) the distribution of misbehavior by school characteristics; (3) the relationship between discipline, misbehavior, and school characteristics; (4) students' perceptions of school discipline; (5) the accuracy of students' and school administrators' perceptions of school problems; (6) rule enforcement, rule perception, and misbehavior.

November 1981; NCES 82-202 (#065-000-00126-8)
202 pages; $7.50
Order from:
Superintendent of Documents
US Government Printing Office
Washington, DC 20402

Education, Character, and American Schools*
NIE, the Ford Foundation
Project Director: Gerald Grant

The study was begun in 1979 and continues through 1984; it seeks to answer questions surrounding why schools differ and why schools create one kind of ethos or climate rather than another. Five public and private schools were chosen for extensive observation during the 1979-80 school year.

A book on this project is planned; several articles have been written. Articles on the study are available for the cost of copying and mailing from:
Good School Project
259 Huntington Hall
Syracuse University
Syracuse, NY 13210

High School Achievement: Public, Catholic and Private Schools Compared
James S. Coleman, Thomas Hoffer, Sally Kilgore

Drawing on the first results of a national study of 58,728 students in 1,015 high schools, the findings suggest that students in private and Catholic high schools academically outperform public school students when matched for race, socioeconomic status and parental education. The report attempts to dispel the notion that private and Catholic schools are good because they select better students, and public schools are poor because they have to take everyone.

289 pages; $20.75
Available at bookstores or order from:
Basic Books, Inc.
New York, NY

Goal Based Education Program*
Project Director: Robert E. Blum
Northwest Regional Educational Laboratory

The project, which runs from 1982 through 1984, is intended to determine the extent to which effective schooling research and teaching practices can be applied to high schools, and with what effect. Five schools are using such practices and monitoring their results. A preliminary report will be available soon.

For information, contact:
Northwest Regional Educational Laboratory
300 Southwest Sixth Street
Portland, OR 97204

Project on Alternatives in Education*
Sponsored by the American Association of Colleges for Teacher Education, ASCD, the Education Commission of the States, NASSP, and NEA.
Project Directors: Mary Anne Raywid and Herbert J. Walberg.

The study, which began in 1981, focuses on alternative schools and seeks to discover which educational alternatives best serve students. A national survey of public alternative schools in the US has been completed, resulting in a directory of these schools and a report on the findings of the survey.

For information, contact:
Mary Anne Raywid
Hofstra University
Hempstead, Long Island, NY 11550

Redefining General Education: The American High School*
Gordon Cawelti
ASCD, 1982

This study of "the adequacy of present general-education programs in 17 high schools" with the intent of a new curriculum design began in 1981. Final reports are being made this year, and regional networks of high schools that want to participate thereafter will be established during the 1983-84 school year.

Video: 24 min. Rent 5 days $50 + shipping; 2-day preview $30 + shipping (unscheduled); ¾" video cassette; ½" Beta; ½" VHS; ½" reel to reel videotape

Purchase $195 if members; $235 non-members
Order from:
Association of Supervision & Curriculum Development
225 North Washington St.
Alexandria, VA 22314

Successful Schools for Young Adolescents*
Directed by Joan Lipstiz
Center for Early Adolescence
University of North Carolina at Chapel Hill.

The study is designed to extend "effective schools" research to the middle school. Case studies of four middle schools were conducted in 1980-81, concentrating on purposes, goals, school climate, and curriculum. A book based on the study will be published by Transaction Books in the Fall of 1983.

For information, contact:
Joan Lipsitz
Center for Early Adolescence
University of North Carolina
Chapel Hill, NC 27514

The Urban High School Reform Initiative: Final Report, 1979
Thomas J. Burns, Chairman
Prepared for the US Department of Health, Education, and Welfare: Office of Education, Washington, DC 20202

The final report of the Urban High School Initiative was based on testimony from nearly 1,000 local urban practitioners and citizens from America's largest cities. The study and federal legislative analysis is intended to provide a basis for the re-examination of what educational leaders can do to help urban secondary schools face the challenges of the 1980s. The five recommendations are: (1) shared decision-making through school site councils and school site budgeting; (2) diverse learning environments requiring site-specific blueprints for educational program development and professional development; (3) school-community development including networking with the urban community and coordinated youth services; (4) school finance and red tape reform to reduce management complexity of urban secondary schools; and (5) research and dissemination targeted for the extraordinary needs of adolescents.

148 pages
Order from:
US Department of Education
400 Maryland Ave., SW
Washington, DC 20202

Curriculum

Computerized Factory Automation: Employment, Education, and the Workplace*
Project Director: Marjory Blumenthal
Sponsored by The Joint Economic Committee of the US Congress

This project will assess the impact of computer-based technology in manufacturing, including possible changes in education and vocational training that could result. The study, which will also examine computer and technology literacy in the current work force, should be published in early 1984.

For information, contact:
Beth A. Brown, Senior Analyst
Office of Technology Assessment
Washington, DC 20510

Computers in Education: A Report, Recommendations, Resources*
Michael T. Sherman in conjunction with the National Association of Independent Schools.

Mr. Sherman spent a year examining the computer-education activities in leading primary and secondary independent schools in the US. The report includes a discussion of the results of his study.

1983; 118 pages; $10.75
Nathaniel B. Bates Publishing Company
277 Nashoba Road
Concord, MA 01742

Educating Americans for the 21st Century: A plan of action for improving mathematics, science and technology education for all American elementary and secondary students so that their achievement is the best in the world by 1995
Co-chairs: William T. Coleman, Jr. and Cecily Cannan Selby

The National Science Board Commission on Precollege Education in Mathematics, Science and Technology

The study was developed as a plan of action for all sectors of society to improve the quality of education in mathematics, science and technology in elementary and secondary schools. The 20-member Commission forwards recommendations in the areas of leadership, teachers and teaching, curriculum and instruction, new information technologies, informal education, and finance. Appendices provide a listing of programs and activities reviewed by the Commission, suggestions for course topics and criteria for selection, costs of recommended federal initiatives, imaginative ways to enhance teacher compensation, and information on using computers in the schools.

September 1983
142 pages; single copy free
Order from:
Publications, Room 232
National Science Foundation
1800 "G" Street, NW
Washington, DC 20550

Fifty-State Survey of State Science, Mathematics, and Computer Education Initiatives*
Sponsored by the Education Commission of the States and the National Science Foundation
Project Director: Jane Armstrong

The project will gather state-by-state information on a number of math and science education topics, such as changes in high school graduation requirements; special programs, institutes and schools for gifted math, science, or computer students; state department of education initiatives in math and science; software development or evaluation; and statewide commissions or task forces designed to deal with any of these issues.

For information, contact:
Education Commission of the States
Suite 300, 1860 Lincoln St.
Denver, CO 80295

Focus on Excellence
A monograph series
National Science Teachers' Association, 1982

A monograph series is in progress as the result of an extensive effort to identify innovative and successful practices associated with science education. The series will include separate monographs on: biology, physical science, elementary science, science as inquiry, and science/technology/society. The monograph currently available is entitled, **Science as Inquiry.**

Vol. I, number 1; $9.00 + $2.35 postage.
Order from:
NSTA Publications Department
1742 Connecticut Avenue, NW
Washington, DC 20009

Informational Technology and its Impact on American Education
Office of Technology Assessment

This is a state-of-the-art report on technology and education. The report includes case studies of school districts that have implemented tech-

nology-assisted programs. The report also describes government education and private sector cooperative efforts to promote the use of technology in the schools.

November 1982; 267 pages; $8.00
(#052-003-00888-2)
Order from:
Superintendent of Documents
US Government Printing Office
Washington, DC 20402

The Images of Science: Report on the 1981-82 Nationa. Assessment*
National Science Foundation, in collaboration with National Assessment of Educational Progress
Project Director: Wayne W. Welch

Mr. Welch last year surveyed a random sample of 9, 13, and 17-year-olds in 273 public schools across the country about their knowledge of and attitudes about science. He presented his findings in April. Smaller reports including such issues as science enrollment patterns and computer inequity are being prepared and should be completed this summer.

250 pages; $9.50
Order from:
Wayne Welch
University of Minnesota
Room 210, Burton Hall
Minneapolis, MN 55455

The National Study of the Estimated Supply and Demand of Secondary Science and Mathematics Teachers*
Project Directors: Trevor G. Howe, director of education placement at Iowa State, and Jack A. Gerlovich, science education consultant in the Iowa Department of Public Instruction

Now in its fourth year, the survey estimates state-by-state supply of and demand for secondary teachers in biology, chemistry, physics, general science, earth science, and mathematics. The Fall 1983 survey is expected to be completed soon.

For information, contact:
Trevor G. Howe
Iowa State University
Ames, Iowa 50010

The Project on Information Technology and Education*
Sponsored by the Carnegie Corporation
Project Director: Marc S. Tucker

For over a year, Mr. Tucker has been analyzing the use of information technology—particularly computers and telecommunications systems—in elementary, secondary, and higher education. He has written several articles on the subject, and he may produce a substantial report on this work sometime in 1984.

For information, contact:
The Carnegie Corporation
Suite 301
1001 Connecticut Avenue, NW
Washington, DC 20036

Report of the 1977 National Survey of Science, Mathematics, and Social Studies Education
Iris R. Weiss
Center for Educational Research and Evaluation
Research Triangle Park, North Carolina

The study, funded by the National Science Foundation, examines mathematics, science, and social studies education. The topics examined include: state and local district supervision; course offerings; federally-funded curriculum materials; use of textbooks/programs in classes; instructional techniques and classroom activities; facilities, equipment, and supplies; teacher qualifications; sources of information utilized by instructional staff; and factors that affect instruction. Appendices related to the conduct of the study accompany the text.

March 1978
320 pages; price $6.50 (#038-000-00364-0)
Order from:
Superintendent of Documents
US Government Printing Office
Washington, DC 20402

Science and Engineering Personnel: A National Overview
1982 Report (NSF 82-318)
National Science Foundation

The second of a biennial series, the report is designed to furnish a comprehensive overview of the status of US scientific and technological efforts as they relate to the employment and other characteristics of science/engineering personnel. It provides a perspective or framework for analyzing issues relating to these personnel. The report begins with an integrated overview of current utilization and supply patterns for all US scientists and engineers, and the roles of women and minorities in science and engineering. Issues relating to science/engineering personnel in universities and industry are discussed, as well as the role of precollege mathematics and science training on student decisions to enter careers in engineering or science. The report concludes with an examination of the flow of scientists and

engineers into and out of science and engineering.

66 pages; $5.00 (#038-000-00518-9)
Order from:
Superintendent of Documents
U.S. Government Printing Office,
Washington, D.C. 20402

Science & Engineering: Education for the 1980's & Beyond
Prepared by the National Science Foundation & the Department of Education: October 1980

The report, developed jointly by the National Science Foundation and the Department of Education, divides the condition of science and engineering education into two components. The first of these examines the basic scientific and technological education of all our citizens; the second looks at professional science and engineering education. The report notes that both the instructional and research capacities of our universities in several fields have been strained by faculty shortages and equipment obsolescence. The report also documents a decline in the general understanding of science and technology among the students in our secondary schools. More detailed information about the issues addressed appears in an attached analysis.

82 pages; $5.50 (#038-000-00467-1)
Order from:
Superintendent of Documents
US Government Printing Office
Washington, D.C. 20402

State of Precollege Education in Mathematics and Science
Paul DeHart Hurd
Prepared for the National Convocation on Precollege Education in Mathematics and Science, May 12-13, 1982, National Academy of Sciences and National Academy of Engineering, Washington, D.C.

In recent months the scientific and engineering communities have been exploring ways to maintain the vigor of research and technological innovation in the United States. In the course of these discussions several disturbing problems have emerged relative to the teaching of precollege science and mathematics. For nearly a decade science enrollments in high schools have been decreasing and students are not motivated to study science. In mathematics students are taking more semesters of courses, but show an overall decline in achievement. For both science and mathematics courses there is a growing shortage of qualified teachers. If a reasonable degree of scientific and technological literacy is an expected outcome of a high school education, it is not being achieved. This report identifies an agenda of issues as a background for considering science and mathematics education in precollege schooling. Comments on trends and issues are based on the best available data. The issues identified in this report are products of a conceptual analysis and synthesis of a variety of reports, surveys, and other documents issued by scientific and professional societies within the past decade. By and large, only those issues that are of national concern and have a modest consensus are being reported.

15 pages
Order from:
Paul DeHart Hurd
Stanford University
Stanford, CA 94305

Strength through Wisdom: A Critique of U.S. Capability
James A. Perkins, Chairman
A Report to the President from the President's Commission on Foreign Language and International Studies

The final report of the Commission is relatively brief and concentrates on future action. The report includes a review of the state of language and international education. Recommendations have been instrumental in reviving interest in foreign language and international studies since 1979, though principal emphasis in the report is on advanced scholarship and research. A set of background papers and studies is available under separate cover (#017-080-02070-0).

November 1979; 156 pages; $7.00
(#017-080-02065-3)
Order from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

A Study of Exemplary Mathematics Programs
Project Director: Mark J. Driscoll
Northeast Regional Exchange, Inc.

The study, sponsored by the National Institute of Education, examines 25 pre-college mathematics programs nationwide. The results, to be released in 1984, will focus on characteristics associated with exemplary mathematics programs.

For information, contact:
Northeast Regional Exchange, Inc.
160 Turnpike Road
Chelmsford, MA 01824

Teachers and Teaching

The American Teacher
C. Emily Feistritzer

The report reviews the existing data that have to do with teaching, compiles, organizes, and analyzes the data to present the true picture of teaching in America today. The first section, Current Condition of Teaching in America, reports on who comprises the teaching force in schools today by age, sex, ethnic background, academic preparation, and years of experience. Supply and demand issues are dealt with in the second section: population and enrollment trends for each segment of school-age population are examined in relation to numbers of teachers. A discussion of factors that will influence the future demand for teachers constitutes section three: population trends, changing roles of women, regional migration, minority populations, immigration trends, global population growth, and technological developments. The fourth section describes teacher education. Comparisons are made between students majoring in education and students majoring in other fields—numbers and academic ability by sex and ethnic background.

1983; 63 pages; $19.95 (includes postage)
Order from:
Feistritzer Publications
1261 National Press Bldg.
Washington, D.C. 20045

The Condition of Teaching: A State by State Analysis
C. Emily Feistritzer, 1983
The Carnegie Commission for the Advancement of Teaching and Learning

This report includes an examination of the status of teachers in each state. Comparative data is presented regarding salaries, education, supply and demand, teacher attitudes and achievement. Ernest L. Boyer, in the foreword, writes "teachers are troubled not only about salaries but about loss of status, the bureaucratic pressure, a negative public image and the lack of recognition and rewards."

Copies of the report can be obtained from:
Princeton University Press
3175 Princeton Pike
Lawrenceville, NJ 08648

Current Issues in Teacher Education: From a State Perspective
Prepared for the Board of Directors
Northeast Regional Exchange, Inc.
Theodore E. Andrews

The report includes the broad spectrum of issues related to teacher preparation and staff development. The issues addressed are: (1) teacher education in a global perspective, (2) the competent teacher, (3) attracting quality teachers, (4) preparing qualified teachers, (5) licensing qualified teachers, and (6) retaining qualified teachers.

October 1982: 72 Pages; $6.00
Order from:
Northeast Regional Exchange, Inc.
160 Turnpike Road
Chelmsford, MA 01824

The Education Workforce Survey*
Education Commission of the States
Project Director: Patty Flakus-Mosqueda

The survey will contain state-by-state information on teacher training, certification, and staff development; on incentives to attract new teachers or to reward exemplary teaching; and on programs to retain teachers or to deal with statewide teacher shortages.

For information, contact:
Education Commission of the States
Suite 300, 1860 Lincoln St.
Denver, CO 80295

Postsecondary Education

Educational Options for Mid-adolescents (a sequence of studies from 1973-83)*
Sponsored by Simon's Rock of Bard College
Project Director: Nancy Goldberger

The three-phase study has looked at "Psychological Characteristics of the Early College Student" (1973-77); "Meeting the Developmental Needs of the Early College Student" (1978-80); and "Education for Women's Development" (1980-83). The last phase of research focuses on how women learn and how institutions can become more responsive to the developmental needs of women. A book will be published in 1984.

Results from the earlier studies are available in written form from:
Ms. Goldberger
Austen Riggs Center, Inc.
Stockbridge, MA 01262.

Meeting the Need for Quality: Action in the South
Progress Report to the Southern Regional Education Board
by its Task Force on Higher Education and the Schools

This report, the second of the Task Force, is a concluding assessment of the southern region's response to the recommendations advanced in **The Need for Quality** (1981). The original 25 recommendations and the subsequent assessment indicate progress in raising academic standards, tightening teacher selection standards, and cooperation between higher education and the schools. Priorities for further action include improving the quality of teachers, selecting principals who are leaders, strengthening mathematics and science, and preparing youth for work. Data and recommendations for further action are presented as part of the assessment.

June 1983; 30 pages; $3.00
Order from:
Southern Regional Education Board
1340 Spring Street, NW
Atlanta, Georgia 30309

Report from the Department of Defense-University Forum Working Group on Engineering and Science Education
Co-Chairs: Lawrence J. Korb and Robert C. Seamans, Jr.

This report responds to the Department of Defense-University Forum's request of the working group to examine DOD's needs for trained technical personnel in light of the present deteriorated capability of the nation's universities to produce well-qualified engineers and scientists. It provides the range of DOD technical personnel needs and examines the environment in our universities. Recommendations regarding DOD actions, including those to promote university research, appear at the end of the report.

Projected release date: Fall 1983
To order, contact:
Association of American Universities
1 Dupont Circle, Suite 730
Washington, D.C. 20036

School and College: Partnerships in Education
Gene I. Maeroff
with a Foreword by Ernest L. Boyer
A Carnegie Foundation Special Report

The report describes selected case studies of school-college collaboration across the country. Five basic principles emerge from the examination of these programs: (1) agreement regarding common problems; (2) the discarding of the traditional academic "pecking order;" (3) the sharp focussing of intended partnership projects; (4) recognition of partnership participants; and (5) a focus on action—not machinery.

77 pages; © 1983 The Carnegie Foundation for the Advancement of Teaching
Order from:
Princeton University Press
3175 Princeton Pike
Lawrenceville, NJ 08648

A Threat To Excellence: The preliminary report of the Commission on Higher Education and the Economy of New England
New England Board of Higher Education

The Commission's principal concern is the future of the region's higher education institutions. The basis for concern is that the competitive strength of the knowledge-intensive region is being gradually undermined. Factors related to this are: the weakening of the public school system, a regional differential in the capacity to finance higher education, and the change in the national perception of economic opportunity in New England. Recommendations for regaining the

competitive strength of the New England region are made in each of these areas.

March, 1982; 30 pages; $3.00
Order from:
New England Board of Higher Education
45 Temple Place
Boston, Massachusetts 02111

To Strengthen the Quality of Higher Education
American Council on Education, 1983

The National Commission on Higher Education issues, composed of knowledgeable men and women inside and outside the postsecondary community, was established to help the nation's colleges and universities address some of their pressing concerns. The report is a set of recommendations to strengthen our higher education institutions, their relationship to secondary schools and the private sector.

February 1983; 12 pages; $1.65
Order from:
American Council on Education
1 Dupont Circle
Washington, DC 20036

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